FRUITS OF ONTARIO

Issued by the Department of Agriculture, Ontario

Digitized by the Internet Archive
in 2026

https://archive.org/details/fruitsofontario0000vari

THE
Fruits of Ontario

PREPARED BY THE FRUIT BRANCH

(PUBLISHED BY THE ONTARIO DEPARTMENT OF AGRICULTURE, TORONTO)

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

TORONTO:
Printed by L. K. CAMERON, Printer to the King's Most Excellent Majesty
1914

Printed by
WILLIAM BRIGGS,
29-37 Richmond Street West,
TORONTO.

To His Honour COL. SIR JOHN MORISON GIBSON, Knight Commander of the Most Distinguished Order of St. Michael and St. George, a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

The undersigned begs to present herewith for the consideration of Your Honour the Report on the Fruits of Ontario.

Respectfully submitted,

JAMES S. DUFF,
Minister of Agriculture.

TORONTO, 1914.

CONTENTS.

	PAGE
INTRODUCTION	5
TREE FRUITS: Extent of Industry	7
Apple	7
Cherry	88
Peach	108
Pear	143
Plum	186
Quince	220
GRAPE	224
BUSH FRUITS: Extent of Industry	253
Blackberry	253
Currant	262
Dewberry	279
Gooseberry	280
Raspberry	287
STRAWBERRY	299
INDEX TO VARIETIES	317

FRUITS OF ONTARIO

INTRODUCTION

When the first fruit trees were planted in Ontario, probably about 150 years ago, the settlers had no reliable information to guide them in selecting varieties or in caring for the trees after they were planted. But the experience of these early settlers was taken advantage of by their descendants who, with the additional knowledge possessed, were able to make some progress, although scattered as they were in those early times without good means of intercourse. The dissemination of information from one to another and to the new settlers who were coming in was slow until the railways were built. Then fruit-growing became much more general, as trees could be easily transported from one part of the Province to another. In 1859 a few enthusiastic horticulturists organized the Ontario Fruit Growers' Association. Meetings were held in different parts of the Province, and the people were urged to plant more fruit. This organization has for the past 50 years by its meetings, annual reports, the *Canadian Horticulturist*, and in many other ways, done very much to bring about the present marvellous development in the fruit industry of Ontario. Realizing that more definite information was needed to guide fruit-growers in the planting of varieties and the culture of fruits, the Association in 1893 urged upon the Government the importance of establishing Fruit Experiment Stations throughout the Province. The idea received the approval of the Government, and in 1894 four stations were established, this number being increased to thirteen in the course of a few years. To these were sent many varieties of fruits, which were tested and reported upon each year by those in charge of the stations. As these experimenters were all practical fruit growers, and in most cases had made a specialty of some kind of fruit, much valuable information regarding varieties and their culture was accumulated by the Department of Agriculture. After the stations were established, it was felt that in due time a hand-book should be published that fruit growers generally might get the full benefit of the information so obtained.

In 1913 it was deemed advisable to revise this hand-book in order to bring the contents up to date and also to provide better illustrations where possible. This revision was undertaken by the Fruit Branch of the Ontario Department of Agriculture, and the present bulletin is a result of this work. In it, new varieties and new photographs have been included, and the descriptions of varieties and cultural directions have been brought up to date.

The descriptions have been verified by comparison with those given in the works of the world's greatest pomologists, such as the "Dictionnaire de Pomologie," by Andre Leroy, of France; "The Fruit Manual," by Thomas Hogg, of England; "The Fruits and Fruit Trees of America," by Charles Downing, of Newburgh-on-the-Hudson; "The American Fruit Culturist," by J. J. Thomas, of New York State; "Apples of New York," by S. A. Beach, of Geneva, N.Y.; "The American Horticultural Manual," by Prof. J. L. Budd, late of the Iowa State College of Agriculture; "Plum Culture," by Prof. F. A. Waugh, of the Massachusetts Agricultural College; "Apple Culture" and "Plum Culture," by W. T. Macoun, of the Central Experimental Farm, Ottawa; "The Grape Manual," by Bush, Son & Misener, of Missouri; the Reports of the Michigan Agricultural College, of the American Pomological Society, of the Ontario Fruit Growers' Association, etc., and many other works.

These have again been modified by the reports of the experimenters in charge of the fruit stations, when it was proved that certain varieties, otherwise desirable, were not adapted to the districts in which they were tested.

In the case of some of the newer varieties of small fruits, especially strawberries and some of the raspberries, also in the case of some of the larger fruits which are somewhat rare, the descriptions have been in part made from the reports of the experimenters, or from the reports of reliable pomologists. From Professor H. L. Hutt, of the Ontario Agricultural College, and others, descriptions of some varieties were obtained.

The nomenclature adopted in these descriptions is based on that of the American Pomological Society, but where names which have been commonly adopted in Ontario would not be easily recognized under this nomenclature the old names have been left unchanged.

The fruits have been divided into four groups in this work, namely: (1) Tree fruits comprising the Apple, Cherry, Peach, Pear, Plum, and Quince: (2) Grape; (3) Bush fruits, comprising the Blackberry, Currant, Dewberry, Gooseberry, and Raspberry; (4) Strawberry. Within these groups the varieties have been arranged alphabetically, as far as possible, for ease in reference.

As it is the object of the Fruit Branch to make this work of the Fruit Experiment Stations as generally useful as possible to the fruit growers of Ontario, it was felt that the "Fruits of Ontario" would be incomplete if published without cultural directions, hence these are given. The lists of varieties recommended are taken from "Fruits Recommended for Planting in Ontario," Bulletin 211, as prepared by the Fruit Branch. The other matter has been specially prepared and revised for this work.

It is hoped that the objects for which "The Fruits of Ontario" was prepared will be accomplished. These are to assist the fruit grower:—

1. In the selection of those varieties most desirable for planting in his particular locality, either for home or for market.

2. By affording a convenient reference in the identification of varieties now grown in the Province.

3. By furnishing a reliable description of the size, color, general appearance, and real value of the varieties often incorrectly described in magazines and catalogues.

4. By giving sufficient cultural directions to enable him to make fruit-growing a success.

1. Tree Fruits

Among what are commonly classed as the tree fruits are the apple, cherry, peach, pear, plum, and quince.

So confident are the Ontario fruit growers of the future of the industry and the continued profits which will be obtained from the culture of these large fruits, that many acres of trees are being set out annually.

The great importance of the fruit interests may be fairly judged by the following figures for Ontario from the Dominion census of 1911:—

——	Not Bearing.	Bearing.	Total Trees.	Bushels.
Apple Trees	2,123,040	5,643,217	7,766,257	6,305,462
Peach Trees	878,436	803,417	1,681,853	503,075
Pear Trees	228,208	511,512	739,720	417,397
Plum Trees.....	356,195	767,827	1,124,022	331,278
Cherry Trees	328,341	507,396	835,737	137,281
Total.....	3,914,220	8,233,369	12,147,589	7,694,493

THE APPLE

There is no part of the world where better apples are grown than in the Province of Ontario, and owing to the hardiness of this fruit it can be successfully cultivated over a very large part of the Province.

From the Ottawa River, which bounds the Province on the east, to the great lakes on the west, a distance of about 500 miles, and from the St. Lawrence River and great lakes on the south to latitude 45 degrees, and even 46 degrees, on the north, a distance of about 280 miles, there are many flourishing commercial apple orchards. But apple-growing is not confined even to this area, for scattered here and there over the newer parts of Ontario almost up to the Manitoba boundary are trees which are bearing good apples and supplying the settler with fruit for home consumption.

Owing to the material difference in climatic conditions between the extreme southern and the northern parts of the Province, some varieties of apples are more adapted to certain sections than others, not only on account of their varying degrees of hardiness, but because some kinds produce better fruit in certain sections than in others. Furthermore, as apples grown in the southern parts of the Province do not keep as well as those grown in the northern sections, the fruit matures earlier, and hence does not come into keen competition with, perhaps, the same varieties from other sources. Each part of the Province, therefore, where apples are grown can produce fruit which has a fair chance of commanding the highest price on the market. As these climatic conditions cannot be changed, it behoves fruit growers in the south-western peninsula to make a specialty of growing fruit for the early markets, for there is no other section which can compete so favorably in the production and sale of early apples, especially for the rapidly growing market in the Northwest.

The fruit growers in the districts bordering on Lake Huron, Lake Ontario and the St. Lawrence River, where the longest keeping apples of best quality are grown, should make a specialty of winter fruit, and by so doing win for themselves a reputation for this class of apples.

In eastern Ontario, where the McIntosh, Fameuse, and other high-class early winter dessert apples are grown so successfully, the fruit grower, though at present handicapped in the growing of late keeping varieties, can obtain for his dessert apples the best prices and thus make his orchard as profitable as those in any other part of Ontario.

For the north, there are a number of varieties, mostly of Russian origin, the hardy survivors through many trying winters in the colder parts of Russia, and these, with the hardy crab apples, are proving a nucleus from which it is believed will be developed, by cross breeding with the best Canadian apples, good dessert varieties which will be grown almost to the extreme northern limits of the Province of Ontario.

Selection of Varieties.

One of the most important things to be considered in planting an orchard is the selection of varieties. Some of the most serious mistakes in the past have been made in this particular. In many cases worthless varieties have been planted, which is hardly to be wondered at when planters had little more to rely upon regarding varieties than the exaggerated descriptions given by travelling tree agents. But in these days, when we have reliable information about all classes of fruits for all sections of the Province published annually and distributed free, there is no excuse for planting anything but the very best varieties suited to each section.

One mistake to be avoided is that of planting too many varieties, particularly in commercial orchards. A half dozen good winter sorts have been found to be sufficient. For home use, however, the list might be doubled, or at least lengthened, to suit the preferences of all members of the family. There should, in any case, be varieties enough to cover the season and give a bountiful supply from earliest to the latest. One or two summer varieties, three or four autumn, and half a dozen winter varieties would be about the right proportion of each to plant.

Another precaution which has to be taken in planning a commercial orchard, is that of planting too large a block of any one variety. For convenience in harvesting it is no doubt best to plant trees of the same variety near together, but on the other hand if these blocks of one variety are too large it may be the cause of poor crops, for there are many varieties which are self-sterile, that is, the pollen which they produce will not properly fertilize their own flowers, although it may be quite potent on the blossom of some other variety. This question has not been sufficiently studied to warrant us in saying definitely just which varieties are self-sterile and which are self-fertile, although from experiments which have been made, the following varieties appear to be more or less self-sterile: Yellow Bellflower, Chenango, Gravenstein, King, Northern Spy, Primate, Rambo, Red Astrachan, Roxbury Russet, Golden Russet, Spitzenburg, and Tolman Sweet. None of these should be planted in blocks of more than three or four rows, without some other variety intervening which blooms about the same time. In orchards where such a mistake has been made, it can be rectified most readily by grafting every third or fourth row with some variety which will insure cross-fertilization.

Both tree and fruit must be considered in the selection of varieties. The tree must have sufficient hardiness for the locality, and it is in this particular that the district lists of recommendations give valuable information to intending planters. Productiveness is also an important characteristic. Unfortunately some of the varieties of most excellent quality, such as the Blenheim and King, are lacking in this respect, and, while it may be desirable to plant these for home use, still such a defect is a serious one in a commercial orchard. The age of bearing is another characteristic which varies greatly in different varieties. The Northern Spy, for instance, often requires ten or fifteen years before it comes in bearing, while Ontario, Wealthy, and many of the Russian varieties sometimes bear even in the nursery rows, or at least in a year or two after they are transplanted into the orchard. This is a difference which may well be taken advantage of in the arrangement of varieties in the orchard, for, as a rule, those which are slow in coming into bearing make larger trees and are longer lived, while those which begin early and bear heavily are more or less dwarfed in their growth and the

trees are shorter lived. For this reason trees of the precocious varieties are often planted as fillers between rows of the later bearing and larger growing kinds.

The most desirable qualities in the fruit itself depend largely upon whether it is for the market or for home use. For home use, good quality is the first consideration. Usually those having a spicy or characteristic flavor, such as the Spy, King, or McIntosh, are most desirable. Apples with an acid or subacid flavor are most in demand on the market; nevertheless a good sweet apple is often much appreciated for home use. For the market, a good appearance is the first consideration. Good shipping qualities have also to be considered in the selection of commercial varieties, although no doubt the improvement in methods of packing and shipping may render this of less importance in the future than it has been in the past. The Ben Davis apple has long been recognized as one of the best shipping varieties, on account of its firmness and good keeping qualities. On the other hand, the McIntosh is not a long keeper, and is so easily bruised that it cannot be shipped satisfactorily in barrels. But with improved methods of packing and shipping, it may be shipped to any of the European markets and even placed on sale with the Ben Davis, and it is a question how long the Ben Davis, with its inferior quality, will be able in such competition to hold its place in the market. Those who champion the Ben Davis may take exception to the comparison just made because of the relative difference in season of the two varieties. Nevertheless, we believe that it will be safer in the future for growers to look more to the quality of the variety than has been done in the past, for buyers are already becoming more discriminating, and demand apples of the very best quality.

Ordering and Obtaining Trees.

A complete list of the nurserymen of this Province is published each year by the Department of Agriculture, and most of our leading nurserymen advertise in the agricultural and horticultural papers. Upon application, any of these men are glad to quote prices at which they can supply stock.

It is well, when ordering nursery stock, to order early. Too many leave such a matter till planting time, when they might as well have had their order in several months sooner. By ordering early they are more likely to obtain just what is wanted, and if the nurseryman has not the desired varieties on hand, he can obtain them elsewhere by the time they are needed.

When the trees arrive from the nursery, it is best to unpack them as soon as possible, and, if it is not convenient to plant them at once, the roots should be spread out and buried in a deep trench till they can be permanently planted. The longer the trees are to remain in this position the more carefully they should be heeled in.

VARIETIES RECOMMENDED.

General Lists of the Most Valuable Varieties for Market Approved by the Board of Control.

Summer.

Astrachan, Duchess.

Fall.

Gravenstein, Wealthy, Alexander, McIntosh, Fameuse, Blenheim.

Winter.

King, Hubbardston, Greening, Cranberry, Baldwin, Spy, Stark.

VARIETIES ESPECIALLY ADAPTED TO HOME USE.

Summer.

Transparent, Primate, Sweet Bough, Duchess.

Fall.

Chenango, Gravenstein, Wealthy, McIntosh, Fameuse, Blenheim.

Winter.

King, Wagener, Swayzie, Greening, Tolman, Spy.

HARDY APPLES RECOMMENDED FOR SECTIONS NORTH OF LATITUDE 46 DEGREES, OR APPROXIMATELY IN A LINE WITH THE OTTAWA RIVER.

Summer.

Transparent, Lowland Raspberry, Charlamoff.

Fall and Winter.

Duchess, Wealthy, Hibernal, Longfield, Patten, Whitney, Hyslop, Milwaukee.

CRAB APPLES.

Whitney: A large crab of high quality, suitable for planting in the extreme north, where other apples will not succeed. May be used for dessert or cooking.

Martha: An early crab of fair quality.
Transcendent: Yellowish crab, season early autumn.
Hyslop: Dark, rich, red crab, of late season, quality only fair.

DISTRICT LISTS.

NIAGARA DISTRICT.

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment.)

Robert Thompson, St. Catharines.

Commercial: Astrachan, Duchess, Gravenstein, Blenheim, Wealthy, Wagener, McIntosh, Hubbardston, King, Greening, Baldwin, Spy.

FONTHILL DISTRICT.

(Including Townships of Pelham, Stamford and Thorold.)

G. C. Brown, Fonthill.

Astrachan, Duchess, Greening, Fameuse, King, Baldwin, Spy.

BURLINGTON-OAKVILLE DISTRICT.

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto.)

A. W. Peart, Burlington.

Duchess, Wealthy, Ribston, Greening, Blenheim, King, Baldwin, Spy.

W. F. W. Fisher, Burlington.

Duchess, Wealthy, McIntosh, Fameuse, Ribston, King, Baldwin, Spy.

LAKE ERIE DISTRICT.

(Including approximately the Counties of Haldimand, Norfolk, Elgin, Welland, excluding Fonthill District.)

Jas. E. Johnson, Simcoe.

Wealthy, Fameuse, McIntosh, Baldwin, Greening, King, Spy.

ESSEX PENINSULA.

(Including Essex, Kent and Pelee Island.)

J. L. Hilborn, Leamington.

Duchess, Blenheim, Baldwin, Stark, Hubbardston, Spy.

J. Atkin & Son, Leamington.

Red Astrachan, Duchess, Blenheim, King, Hubbardston, Baldwin.

BRANT DISTRICT.

(Including Counties of Brant, Oxford, Middlesex and south-western part of Perth.)

J. C. Harris, Ingersoll.

Duchess, Gravenstein, Blenheim, Ribston, Alexander, Greening, Baldwin, King (top grafted), Spy.

C. W. Gurney, Paris.

Blenheim, King, Baldwin, Spy, Greening.

FOREST DISTRICT.

(Including the County of Lambton.)

D. Johnson, Forest.

Duchess, Greening, Baldwin, Hubbardston, Golden Russet, and (if grafted on Tolman) King and Spy.

LAKE HURON DISTRICT.

(Including Counties of Huron and Bruce.)

D. F. Hamlink, Goderich.

Astrachan, Duchess, Greening, Blenheim, McIntosh, Fameuse, King, Tolman, Baldwin, Spy, Stark, North Star.

GEORGIAN BAY DISTRICT.

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay.)

J. G. Mitchell, Clarksburg.

Astrachan, Duchess, Gravenstein, St. Lawrence, Alexander, Wealthy, Twenty-Ounce, McIntosh, Greening, King, Baldwin, Spy.

LAKE SIMCOE DISTRICT.

(Including the northern and eastern sections of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe.)

G. C. Caston, Craighurst.

Duchess, Peerless, Alexander, Wolf, Blenheim, Pewaukee, Stark, Baxter, Fallawater, Fameuse, Seek, and the following if top-worked on hardy stocks: Greening, King, Ontario, Baldwin, Spy.

GUELPH DISTRICT.

(Including the high inland Counties of southwestern Ontario, *i.e.*, Wellington, Waterloo, northwestern section of Perth, south part of Grey, Dufferin, and northwest section of Peel and Halton.)

Prof. J. W. Crow, O.A.C., Guelph.

Apples: Duchess, Alexander, Wealthy, Fameuse, McIntosh.
Crab Apples: Whitney, Martha.

LAKE ONTARIO DISTRICT.

(Including the southern portions of the Counties bordering on the Lake Ontario shore from Toronto to Trenton.)

Elmer Lick, Oshawa.

Gravenstein, McIntosh, Fameuse, Blenheim, Greening, Baldwin, Spy.
(If further varieties are required add Golden Russet (for wet spots), Cranberry, Fallawater, Stark (liable to be overplanted).

W. H. Dempsey, Trenton.

Duchess, Gravenstein, Alexander, Fameuse, McIntosh, Greening, Baldwin, Spy, Ben Davis, Stark.

ST. LAWRENCE VALLEY DISTRICT.

(Including the valley of the St. Lawrence River from Kingston to the eastern boundary of the Province.)

Harold Jones, Maitland.

Duchess, St. Lawrence, Alexander, Wolf, Wealthy, Scarlet Pippin, Fameuse, McIntosh, Baxter, Tolman, Golden Russet.

Ottawa District.

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Apples: Transparent, Lowland Raspberry, Duchess, St. Lawrence, Wealthy, Alexander, McIntosh, Fameuse, Wolf, Milwaukee, Baxter, Scott.
Crab Apples: Whitney, Martha, Hyslop.

Algoma District.

(Including the islands of Manitoulin and St. Joseph, and a limited portion of the northern and eastern shore of the Georgian Bay.)

Chas. Young, Richard's Landing.

Apples: Transparent, Charlamoff, Astrachan, Duchess, Peach, St. Lawrence, Alexander, North Star, Colvert, Gideon, McIntosh, Winter St. Lawrence, Wolf, Baxter, Longfield, Louise, Wealthy, Patten.
Crab Apples: Whitney, Hyslop, Isham.

Site of the Orchard.

The large inland lakes surrounding the southern portion of this Province have a wonderfully ameliorating effect upon the climate for some distance from their shores, and as a rule our most extensive commercial orchards are in proximity to these large bodies of water. There are, however, in the interior many localities quite as favorable for fruit growing, but in such locations the question of site and exposure has to be more carefully considered. The site usually selected for the orchard is one near the buildings, which may be all right if these are on the highest ground, for such grounds are not only best drained but are least liable to untimely frosts. Good atmospheric drainage is often quite as important as good water drainage, and cold air, like cold water, runs down hill. Only a few feet of elevation above a wide adjoining area may be sufficient to enable trees in full bloom to escape a frost which destroys the crop on the lower level. On level lands there is practically no atmospheric drainage and the orchardist must take his chances and make the best of it.

Exposure.

Where the land is rolling, and there is a choice of exposure, the situation should be carefully considered, for in many cases this may be the difference between success and failure. As to which is the best exposure, depends largely upon the surroundings. In proximity to large bodies of water the best exposure is toward the water. In localities subject to late spring frost the safest exposure is towards the north, as this helps to retard the period of bloom till danger of frost is past. On a northern exposure trees are less likely to suffer in times of severe drouth, and there is also not so much injury from sun scald, a most serious trouble in northern localities. For the reasons given a northern or eastern aspect is, as a rule, preferable to a southern or western one, and also because there is less exposure to our strongest prevailing winds, which come from the south-west.

Windbreaks.

Protection from the prevailing winds is another matter that requires due consideration. The shelter accorded by a high hill or natural belt of timber is perhaps the ideal one, but when these do not exist, the planting of a windbreak is often necessary. The best trees for windbreaks are some of the evergreens, such as Norway and White Spruce, the Austrian and Native White Pines. The Norway Spruce is most used because it is a

rapid grower, and the young trees may be obtained very cheaply. The windbreak should be planted at the same time as the orchard; it will then be effective by the time the trees come into bearing. A single row may be sufficient, although in very exposed places, a double row, with the trees set alternately, is preferable. The trees should be at least six or eight feet apart, and even ten or twelve feet is better when the trees grow up. The trees should not be planted nearer than forty feet from the first row of apple trees, as if planted too near drifts of snow may cause injury in winter, and insects are more troublesome in summer where there is not a good circulation of air. The trees in the windbreak should be well cultivated, the same as the trees in the orchard, until they become well established. Neglect of this is the main cause of failure in setting out windbreaks.

The Soil and its Preparation.

The apple tree readily adapts itself to a great variety of soils, yet there are certain kinds upon which it does much better than others. Light sandy soils are usually deficient in plant food, and are not retentive of it when fertilizers are applied to them. On the other hand, heavy clay soils may contain plenty of plant food, but they are difficult to work, and unless very carefully managed bake so hard that the tree will not thrive upon them. The ideal soil is a happy mean between these extremes, a friable loam. It may be called a sandy or a clay loam, as either sand or clay predominates in its composition, and is all the better if of a limestone formation upon an open subsoil.

One of the first requisites in any orchard soil is good drainage. Fruit trees will not thrive upon undrained soil. If the land is not naturally well drained, it should be thoroughly underdrained.

Good preparation of the soil previous to planting is very essential. Trees set on unprepared soil are seriously handicapped at an important stage of their life and often they never overcome it. Land which has been exhausted by grain production is in poor condition for the growing of trees, although it may be greatly improved by growing and plowing down two or three crops, such as rye, clover, or vetches, as a green manure. Probably no other crop leaves the ground in better mechanical condition for the growth of trees than clover. Its roots penetrate the soil deeply and leave it well filled with vegetable matter or humus.

There has been much diversity of opinion regarding the value of subsoiling in preparing the land for trees. But there is little room for doubt that it is of much benefit on land where the subsoil is hard and impervious to water. The subsoiler should follow in the furrow of the ordinary plow, loosening the subsoil as deeply as possible. Where this is not done, clover roots are the next best thing as subsoilers.

The preparation of the ground for planting should begin by a good deep plowing in the fall, and it would be all the better if it could be ribbed up as is now frequently done in preparing ground in the fall for spring seeding. This insures good surface drainage and quick drying of the ground in the spring. All that would then be required in the spring would be to harrow down the ridges and loosen up the ground as deeply as possible with a spring tooth cultivator.

Planting.

Great care should be taken and good judgment shown in laying out the orchard and in planting the trees.

The proper distance apart for planting depends altogether upon the ultimate size which the trees may attain, which in turn depends upon the variety, the soil, and the locality. The varieties grown in our most northern orchards seldom spread more than twenty or twenty-five feet, while the kinds grown in the more favored apple sections of Southern Ontario often have a spread of forty feet. The best guide to intending planters is to observe carefully the distances required for full grown apple trees in the neighborhood. In southern Ontario this will be found to be from thirty-five to forty feet, throughout central Ontario thirty to thirty-five feet, while in the northern sections,

where only the hardiest kinds are grown, tweny-five feet will be found quite sufficient. It is wise to allow plenty of space, so that there will be no crowding when the trees have reached their full size. Planting too close is a far more frequent and serious mistake than planting too far apart.

A plan quite frequently adopted, particularly in some of the large American orchards, is to use some of the small-growing early-bearing varieties as fillers between the large-growing varieties. The Duchess, Ontario, and Wagener, for example, are planted alternately with large growing kinds, such as Baldwin, Greening, and Spy.

In such cases, the large-growing kinds are set at the maximum distance apart, and the smaller kinds between them. By the time the larger kinds begin crowding, the smaller ones will have paid for their keep and that of the others, and can be cut out to make room for the larger trees. The greatest objection to this plan is the danger that the fillers may be left so long before they are removed that the value of the whole orchard may be impaired.

There is a diversity of opinion as to the best time for planting, although it may be done successfully any time when the tree is dormant, either in the spring or autumn. In favorable localities and with hardy varieties it may be done quite as well one season as another, but for general planting the spring is the safest time in our rigorous climate.

The trees should be planted in rows as straight as it is possible to make them. Straight rows add not only to the appearance of the orchard, but to the convenience of cultivation. One of the best means of getting the rows straight is to stake out the position for each tree before beginning to plant.

Great care should be taken to prevent the roots of the trees drying while they are out of the ground. If it happens to be hot and windy at the time of transplanting, it is a good plan to puddle the roots in soft mud as soon as they are taken from the packing box or trench, and in carrying the trees about the orchard it is well to keep the roots covered with a wet blanket or piece of old carpet.

The hole for the tree should be wide enough to hold the roots without cramping or crowding, and should be deep enough to admit of a few inches of fine mellow surface soil being filled in the bottom, and still have the roots an inch or two deeper than they were in the nursery row. The roots should be spread out in their natural position and should be covered with moist mellow surface soil. It is well, in digging the holes, to have the surface soil placed at one side and the subsoil on the other, so that in refilling, the surface earth may be placed next the roots and the subsoil left for the top. If the soil has been properly prepared it is seldom necessary to water the roots at the time of transplanting, but care must be taken to ensure the soil moisture from below coming up to the roots. This may be done by tramping the earth firmly as soon as the roots are well covered, and leaving only the top soil untramped to act as a mulch and retain the moisture below. The neglect of this firming of the soil around the roots is one of the most common causes of failure in the transplanting of trees. If watering is necessary, a small pailful poured in as soon as the roots are nearly covered, is of more use than a half dozen on the surface after the planting is finished.

All torn, bruised, or injured roots should be cut back, with smooth cuts, to sound wood. Smooth cuts callous over quickly and new roots are the more readily sent out. Trees obtained from the nursery, no matter how carefully they may have been taken up, have lost the greater part of their root system, and in order that they may make a satisfactory growth when transplanted the top must also be cut back to a similar extent to restore the balance. This cutting back, however, can be most satisfactorily done after the trees are planted, when they are held firmly by the soil, and more careful attention can be given to shaping the head of the young tree. Closely associated with the heading back of the top at the initial pruning of the tree, is the question of determining the height at which the head should be formed. On this, as in many other points of orchard management, there is a variety of opinions. Some prefer high heads, because of the greater convenience for cultivation and working underneath; while others prefer them low, because of the greater convenience in pruning, spraying, and harvest-

ing. There are other reasons, however, why low-headed trees are preferable: in exposed locations the trees and crop are less likely to suffer from violent winds, and in northern localities the trees with short trunks and low-spreading branches are much less subject to injury from sun scald, the most serious tree trouble of the north. It is better for the planter to get two-year old rather than three or four-year old trees, so that he can start the head at whatever height he wishes. In this connection it may be stated that tree trunks do not lengthen, except by pruning off the lower branches, so that at whatever distance from the ground the lower branches are left, that will be the permanent length of the trunk.

Three branches are enough to leave to form the main limbs or framework of the tree top. These should be evenly spaced around the trunk to give a well-balanced and symmetrical top, and they should also be placed on the trunk so as to distribute evenly the weight of the top and avoid bad crotches which are liable to split down with the weight of the crop. It is particularly important at this stage that great care should be taken to train the young tree in the way it should go, and much can be done in training and directing growth by heading back to buds pointing in the direction we wish the new branch to take.

Care of the Orchard after Planting.

In a newly-planted orchard the trees occupy but a small portion of the land, and they cannot be expected to give any returns for at least five or six years. It is advisable, therefore, that some other crop be grown in the orchard which will pay for the labor spent upon it till the apple trees come into bearing and require all the space. It is by injudicious cropping, however, that young orchards are often most seriously injured. It should not be forgotten that the apple trees are the first consideration, and that whatever cropping is done in the orchard must not interfere with them in the least.

In some cases the spaces between the trees may be planted with small fruits, such as raspberries, currants, or gooseberries, but these should not be planted within nine or ten feet of the tree, nor should they occupy ground more than six or seven years. If fillers are used in the orchard intercropping should be discontinued in four or five years.

Hoe crops, such as corn, roots, potatoes, etc., have generally been recommended as the best to grow in the orchard, because of the opportunity they afford for cultivation. This may be all right as far as it goes, but these crops draw heavily upon the plant food in the soil and return very little in the way of roots or plant residue. If such crops are successively grown for several years, they are almost sure to seriously deplete the soil fertility, unless extra care is taken to maintain it by the application of manure or fertilizer. Probably on the whole the least objectionable cropping is a well arranged rotation of crops, in which clover and hoed crops alternate frequently enough to keep the ground in good condition. Some of these crops harbor mice, and whenever such occur in the rotation precautions must be taken at the approach of winter to protect the trees from their ravages.

During all this intercropping a strip in which the trees are growing must be left for regular cultivation, and this strip should be widened each year as the trees increase in size. No cropping should be attempted under the head of the trees, and intercropping should be discontinued as soon as the trees require all the space.

Cultivation.

Cultivation improves the physical condition of the soil by breaking up the soil particles and presenting a greater feeding surface to the roots. By warming and deepening the soil, it permits of a greater depth of feeding area. Every soil particle is surrounded by a thin film of moisture, consequently the finer the soil particles the greater the surface area to hold moisture. A dry earth mulch or dust blanket on top

[illegible]

[illegible]

[illegible]

That a cover crop may be of the greatest value, it should be capable of withstanding the winter and continuing its growth next spring. This, however, is not a necessity, as many of the ordinary crops which will not live through the winter are valuable for this purpose.

Different soils require different kinds of crops. This has led to a division of cover crops under several classes. The most important are the nitrogen gatherers, which through the agency of the nodules on the roots can make use of the nitrogen of the air. Such plants as clover, vetches, alfalfa, peas, and beans, belong to this class, and should be used where the soil is deficient in nitrogen. Another class is known as the potash liberators, such as turnips and rape, which, although they do not add anything to the soil, as do the leguminous plants, yet change the form of the mineral potash so that it may be more readily acted upon by the roots of succeeding crops. Then there is a third class, commonly grown, such as rye, oats, and buckwheat, which are valuable chiefly on account of the humus formed by their development.

Hairy Vetch, sown at the rate of thirty-five pounds per acre, forms a very close mat over the ground. This is a valuable crop owing to the fact that it collects nitrogen, lies close to the ground so that it does not inconvenience the pickers when gathering the fruit, and also withstands the cold winter and continues its growth early in the spring.

Red Clover and Mammoth Clover, sown at the rate of twenty-five to thirty pounds per acre, are about equal in value, make a fair growth, are low growing, and winter well on drained soil.

Crimson Clover has not made quite as good growth as the red or the mammoth, nor will it stand the winter in the colder sections, which is a serious disadvantage. Best sown thirty to thirty-five pounds per acre.

Alfalfa, or lucerne, is one of the best leguminous crops for dry land. It makes a good growth and winters well. There is a mistaken impression that alfalfa will not make sufficient top the first season. Thirty pounds of seed per acre, sown in July, will give a good stand the same season.

Rape has given good results in the colder sections. It makes a heavy growth of stiff stems, which, although nearly all killed in winter, stand up well enough to hold the snows. Rape can scarcely be recommended for fruiting apple orchards, as it remains wet the greater part of the day, making the work of harvesting very unpleasant. It may be used to good advantage in the rotation, especially if few fruits are to be harvested.

Rye, the favorite crop of many growers, gives a fair amount of top and winters well. One advantage of rye is that it may often be grown on lands not in a physical condition for the growth of clover. In this way humus may be added to the soil, and conditions made more favorable for the growth of clover.

Maintaining Fertility.

The maintenance of fertility is more frequently neglected in the orchard than on any other part of the farm. Trees, even on poor land, will produce fruit, but it is only on soils where fertility is maintained that paying crops are produced. Each year that fruit is harvested some plant food is removed. If profitable crops are to be expected the supply of plant food in the soil must be maintained.

The most essential elements for the production of fruit are nitrogen, potash, phosphoric acid, and lime. Nitrogen encourages leaf and wood growth, which are essential to the development of the tree and to the production of the best quality of fruit. Potash is an essential constituent in the growth of fruits. It constitutes a large proportion of the ash of the wood and more than 50 per cent. of the ash of the fruit, and is also associated with the development of flavor in the fruit. Phosphoric acid is essential to the development of the tree and the proper ripening of the fruit. Lime is not in itself an essential element, but is necessary in liberating plant food.

Barnyard manure supplies nitrogen, potash, and phosphoric acid, and improves the physical condition of the soil. Cover crops may take the place of barnyard manure to improve the physical condition of the soil, and the leguminous ones may add all the nitrogen required. Concentrated fertilizers or commercial plant foods may be used in conjunction with cover crops to supply all the plant food necessary for the growth of trees. In the use of commercial fertilizers it is well to proceed cautiously, and, by carefully conducted experiments, ascertain what elements of plant food the soil may be deficient in, and what amounts it may be necessary to apply to get the best results. Unleached wood ashes contain a small quantity of phosphoric acid, seldom exceeding 1½ per cent., a larger amount of potash, varying from 5 to 7 per cent., and also a certain amount of lime. Where pure wood ashes can be procured at a price not exceeding ten cents per bushel, they afford an economical source of plant food. An application once in two or three years will usually give excellent results, especially on light soils which are most lacking in potash. Muriate of potash is another economical form in which to obtain potash. Phosphoric acid may be purchased in the form of superphosphate. Nitrogen may be procured in the form of sodium nitrate, but leguminous cover crops furnish a much cheaper source of this essential but costly element.

Pruning.

The object of pruning is to form a vigorous and evenly balanced tree, which will produce annually a paying crop of good-sized, well-colored fruit. Unpruned trees produce many small-sized unsalable apples. Pruning lessens the number of apples per tree, but at the same time increases the size and improves the quality of those produced. A heavy crop of good-sized fruit is not so serious a drain on the vitality of the tree, nor on the fertility of the soil, as the same weight of smaller apples would be, for it is the production of the seed which makes the greatest drain on the tree and soil.

Pruning should be practised every year without fail from the time the tree is planted. In this way the operation is never a severe one, and the removal of the large limbs becomes unnecessary. Limbs growing too strongly in any particular direction, which are liable to upset the balance of the tree, should be headed back. Where two limbs cross, one of them should be removed. Branches growing across, from one side to the other, should be cut out. Care should be taken to leave sufficient twigs in the centre to protect from sun scald. Much may be done in directing growth by heading back to a bud pointing in the desired direction. It is while the trees are young that the greatest care in training is required.

A properly pruned apple tree should be open enough to admit sunlight and permit of free circulation of air. Its lower branches should be trained high enough to admit of easy cultivation, yet the top should not be so high that spraying and harvesting are rendered difficult. Varieties differ more or less in their habit of growth, and, while it may be advisable to modify this to some extent, it is not well to attempt to change it unduly. Long bare branches should be avoided, and the formation of fruit spurs should be encouraged on all parts of the tree.

The best time for pruning is just before growth begins. Wounds made at that season soon heal over. It is not well to prune when there is frost on the wood. Pruning while the tree is dormant tends to increase the growth of wood. Summer pruning encourages the formation of fruit buds, but it is not advisable to do much of it, as the removal of any considerable amount of the leaf area tends to check the vigor of the tree. Pruning by the removal of buds may be practised at any season of the year.

The thumb and finger may be used for the removal of sprouts and buds during the summer. A pair of small pruning shears will remove all twigs less than half an inch in diameter. For larger limbs a sharp fine-tooth saw is needed. Make all cuts as smooth as possible and close to the main stem. When a large limb has to be removed, it may be advisable to cut twice, the first some inches out to avoid splitting, and the second to shorten the stub. A common mistake is the leaving of long stubs which

cannot heal over before rot begins. Where it is necessary to remove large limbs, the wounds should be covered with grafting wax or thick lead paint to prevent the entrance of spores which cause decay.

Grafting.

Grafting is the operation of inserting a scion into a stock, usually for the object of changing the variety of fruit produced. Trees bearing undesirable fruit may be top-grafted with some valuable variety. Many choice half-hardy varieties may be successfully grown by top-working on some hardy stock. Especially desirable characteristics in any variety may be perpetuated by grafting. Individuality is quite as marked in plants as in animals. A certain tree may possess some desirable quality, and this may be preserved and perhaps improved upon by selection. It is advisable when cutting scions to select from those trees which have the desirable characteristics most strongly marked. Nurserymen, as a rule, do not pay sufficient attention to the source from which they secure their scions. The individual orchardist may greatly improve his plantation by top-grafting with scions from a tree having the desired qualities most strongly marked.

Grafting is usually performed in the spring. It is essential that the cambium layer of the scion and stock be in contact on at least one side. From this mucilaginous layer, lying between the wood and the bark, the new cells are formed which in time unite the parts and cover the wound. It is necessary to cover the wounds made in outdoor grafting to prevent the entrance of rot-producing spores. For this purpose wax is generally used.

A good grafting wax may be made by melting together four pounds resin, two pounds beeswax, and one pound tallow. Cool by pouring into a tub of water. Then work up into bars or balls which may be kept in any cool place until required. To economize wax, cloth is sometimes dipped into the hot wax, making wax-cloth. This is more difficult to use than pure wax. The wax may be melted and carried in a glue pot and applied with a brush, or, as is more commonly done, it may be kept in water warm enough to keep the wax pliable so it may be readily applied by hand. It is well to keep the hands greased to prevent the wax from adhering to the fingers.

There are two common methods of top-grafting: (1) Whip or tongue grafting which is practised upon small branches and young trees; (2) Cleft grafting, which is usually performed on branches from one-half to two inches in diameter.

In whip grafting the stock is cut with a bevel about one inch long, and the scion cut to fit that bevel. Both bevels are cut into slightly and the tongue of one fitted into the notch of the other. The cambium layers must be in contact on at least one side. After the scion is set the wound should be covered with wax or similar substance to exclude the air.

Large trees should not be entirely changed over in one year. The first year select the main branches; the second year part of the remainder, and finish the third year. In this way much of the annoyance caused by the growth of water sprouts is avoided.

When cutting off large branches for cleft grafting it is wise to cut twice, making the first cut a few inches above the position chosen for the scion. Then cut off the stub at the desired point, and avoid the danger of tearing the bark. With a chisel or grafting iron split the branch just far enough to admit the scions. Too deep a split weakens the stock, and the scions will not be held sufficiently firm. It is well to avoid grafting two horizontal limbs, one directly above the other. The tendency of new growth is upward, and the growths from the lower one will interfere with the upper. In branches, other than those growing perfectly upright, the split should be made parallel to, rather than at right angles to the ground.

The scion should be made wedge-shaped, with bevel about one inch long, starting at each side just at the base of a bud. Make the scion three buds long, cutting off just above the third bud. It should be cut a little thicker on the side next to the bud, so that the stock may pinch tightly on that side to insure a close contact of the cambium layers.

Open the cleft with the wedge end of the grafting chisel and insert one or two scions, as may be thought necessary. Place the lower bud of the scion to the outside. Do not force the scion down, but open the cleft by enough leverage on the chisel to admit the scion freely. Setting the scion with the top pointing slightly outward insures contact in at least one point. After setting the scions, cover all wounds with wax.

It is sometimes necessary to remove part of the watersprouts, which usually start during the summer, to give the scions room for proper development. By the following spring the scions should have made sufficient growth to require all space in that part of the tree, and all other growth should be removed.

Sun Scald.

Sun scald is an injury to trees which occurs most frequently in the northern districts. It is most serious on young trees, but may also affect the upper side of the large branches in older trees. It is caused by the action of the hot sun on the trunk and branches in the early spring. The first indication is an unhealthy appearance of the bark on the south and south-west sides of trunk and upper side of large branches, the affected parts soon turn brown, then black, and finally die.

In districts where sun scald is apt to occur, it is well to head the trees low and incline the stem slightly to the south-west. In this way the branches afford some shade to the trunk. Anything which will shade the trunk in early spring will prevent the injury. For this purpose the most convenient of the following materials may be used: cornstalks, birchbark, building paper, or a veneer of thin wood, such as is used in basket making. The large branches of old trees should receive natural protection from the small branches and twigs of the top. For this reason severe pruning of the top is not advisable in northern districts.

When trees are badly affected they usually die, but where the injury is slight, and is noticed soon after it occurs, treatment is practicable. Cut away the injured parts, and cover the wound with grafting wax or some material which will keep the wood from drying out. If the tree is healthy and vigorous, the annual growth spreading in from the sound parts soon repairs the injury.

Protection from Mice.

During the past two or three years, mice have become a serious menace to young orchards. The rapid increase in numbers may be largely accounted for by the indiscriminate destruction of the farmer's best friends, the hawks, that feed largely on mice by day, and the owls, which take up the work by night. By carefully protecting the hawks and owls for a few years, their numbers will again increase, so that the equilibrium of nature may be restored. In the meantime something must be done to protect the trees against the rodents.

Mice seldom harbor in a green crop, and on clean fields they find no protection. They are found chiefly along the fence lines and in old meadows. As there is usually some shelter afforded the mice near orchards, it is advisable to guard against their depredations. In localities where the snow falls early and remains on the ground all winter, the simplest means of protecting the trees is to tramp the snow firmly about the base of each tree early in the winter. Where the ground is not continuously covered with snow during the winter, a mound of earth about the tree is sometimes all that is required to divert the runways of the mice. Building paper cut into strips which will reach about one foot high when tied about the trunk of the tree in autumn has been found to be both a cheap and an effective preventive.

Badly girdled trees usually die. When the part girdled is small and is covered before the wood dries out with grafting wax or other substance which will protect the inner tissues, the tree may be saved. If the girdled part extends entirely around the tree, it will be necessary to establish some connection between the cambium above and below the injury. This may be done by bridge-grafting. For this purpose use long scions

cut to a bevel on each end. Insert one end above and the other end below the girdle, making sure that the cut surfaces are in contact with the cambium layer. A sufficient number of these scions should be put in to convey the cambium from the top to the roots and all cut surfaces exposed should be covered with wax.

Picking.

Apples should be carefully picked by hand, without breaking the skin or bruising the fruit in any way. Summer varieties for immediate home use or special local trade should be allowed to ripen on the tree; but if intended for distant markets or storage they should be picked when fully mature, but before they have commenced to mellow. Winter varieties should hang on the tree until they have reached full size and have taken on good color. Apples picked while still immature as a rule keep longer than if allowed to fully ripen on the tree, but they do not develop the full color nor the best quality. No sharp distinction can be made between green and mature, or between fully mature and over-ripe fruit; one blends imperceptibly into the other. Experience teaches at what stage to harvest the crop in order to secure the highest quality and best keeping properties in the fruit. Sometimes, with summer varieties, it is necessary to go over a tree twice, picking the most mature specimens first and leaving the remainder for a week or two in order that they may more perfectly develop. Round bottom baskets or pails should be used for picking, and it is better to have them lined with cloth to prevent bruising the fruit. Fruit should not be piled on the ground, but should be placed at once on the sorting table or be placed in boxes or barrels for removal to the packing house. The apple should be picked with the stem on but without breaking off the fruit spur, as is likely to occur if the fruit is picked too green. Spring waggons should be used to convey the fruit to and from the packing house.

When the trees have been properly pruned, the fruit may all be harvested from ladders. A short step-ladder is convenient for the underside and low branches of the tree. For the upper branches light cedar ladders of suitable length will be found very convenient. Extension ladders have been praised very highly in the past, but as they are both awkward and cumbersome, practical growers are abandoning them. The practice of climbing through the tree to gather the fruit, and letting the baskets down to the ground by means of a rope, is out of date, and is not practised in commercial orchards. Inexperienced pickers often lose a great deal of time by not picking clean as they go, making it necessary to carry the ladder back and forth. Each time the ladder is moved all apples in reach should be picked.

DESCRIPTION OF VARIETIES

ALEXANDER (*Emperor Alexander*).

ALEXANDER.

ORIGIN: introduced into England from Russia in 1817.

TREE: hardy, spreading, vigorous, productive; bears early.

FRUIT: very large size; form round, ovate, conical; skin greenish yellow, russet dots, streaked or splashed with red; stem ¾ inch long, set in a deep russeted cavity; calyx large, nearly closed, set in a deep, even basin.

FLESH: yellowish white; crisp, not very fine, moderately juicy; flavor subacid, pleasant.

QUALITY: dessert, fair; cooking, good.

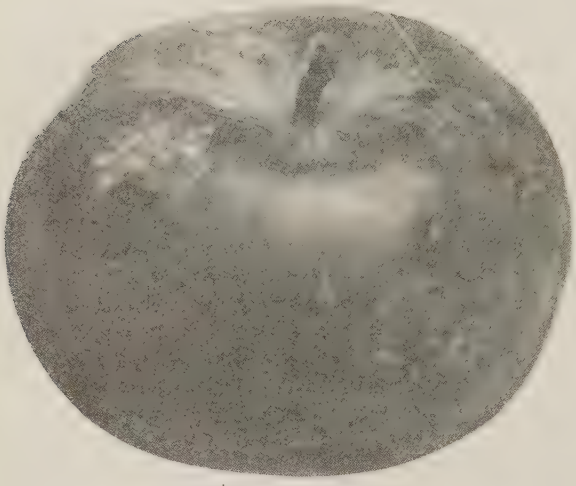
VALUE: home market, first class; can be successfully shipped to Great Britain in cold storage.

SEASON: September to November.

ADAPTATION: quite general, the tree being hardy.

SECTION OF ALEXANDER.

ASTRACHAN (*Red Astrachan*).



ASTRACHAN.

ORIGIN: imported from Sweden to England in 1816, and widely planted in Ontario for a summer market apple. Scarce another apple of its season equals it in beauty of appearance, for in addition to its rich crimson color, it is often covered with pale white bloom. Selected fancy grades of this apple are usually in good demand in our home markets.

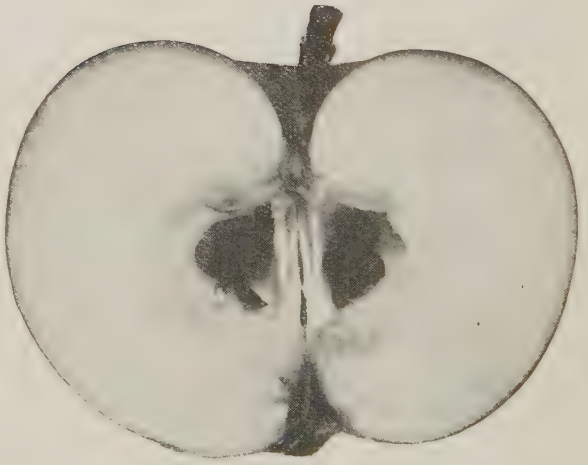
TREE: upright; very vigorous; begins bearing early; very productive.

FRUIT: medium to large; round, narrowing towards apex; skin, deep crimson when exposed to sun, yellowish-green in shade, often covered with a thin, whitish bloom; stem, stout, three-quarter inch long, in a deep cavity; calyx closed in a shallow, somewhat irregular basin.

FLESH: white, crisp, juicy, tender, becoming mealy when over-ripe; acid, almost too tart to be counted very good for either dessert or cooking.

VALUE: first class as an early summer apple.

SEASON: August.

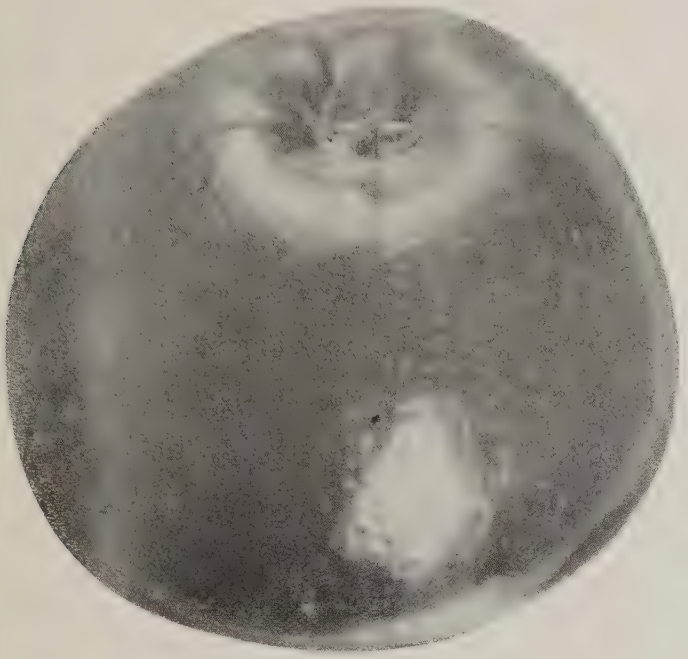


SECTION OF ASTRACHAN.

ADAPTATION: In Niagara district perfectly hardy and productive. Not considered profitable in Lake Simcoe district by some growers.

BALDWIN.

ORIGIN: The Baldwin originated as a chance seedling in the State of Massachusetts and has been for many years the most popular winter apple for either home or foreign markets. The average yield from full grown trees each alternate year is about eight barrels per tree, and in some instances much larger. Large orchards of this variety have been planted in the apple growing counties of middle and southern Ontario.



BALDWIN.

TREE: not hardy outside the best fruit districts; upright, spreading, vigorous grower, usually very productive.

FRUIT: large, roundish, ovate; skin yellow, shaded and splashed with crimson and red, spotted with some russet dots; stem heavy, three-quarters of an inch long, in a broad often russeted cavity; calyx closed, in a deep plaited basin.

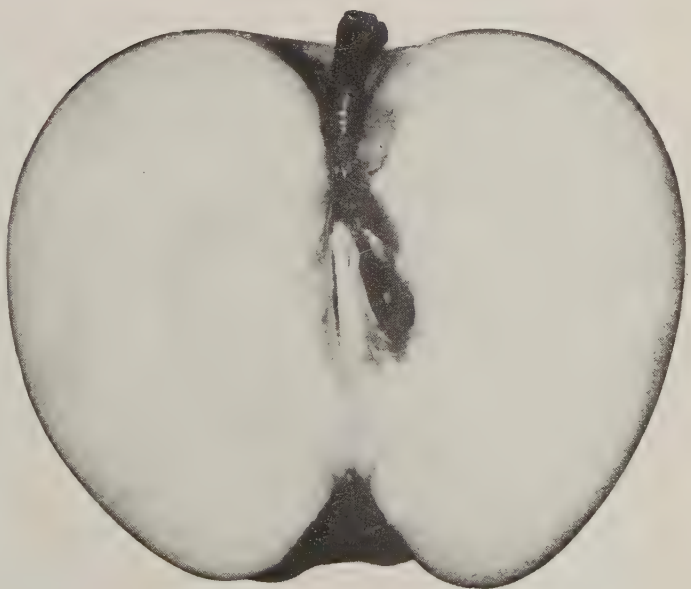
FLESH: yellowish white; tender, juicy; flavor subacid, sprightly, aromatic.

QUALITY: dessert fair; cooking good.

VALUE: market first class, especially for export.

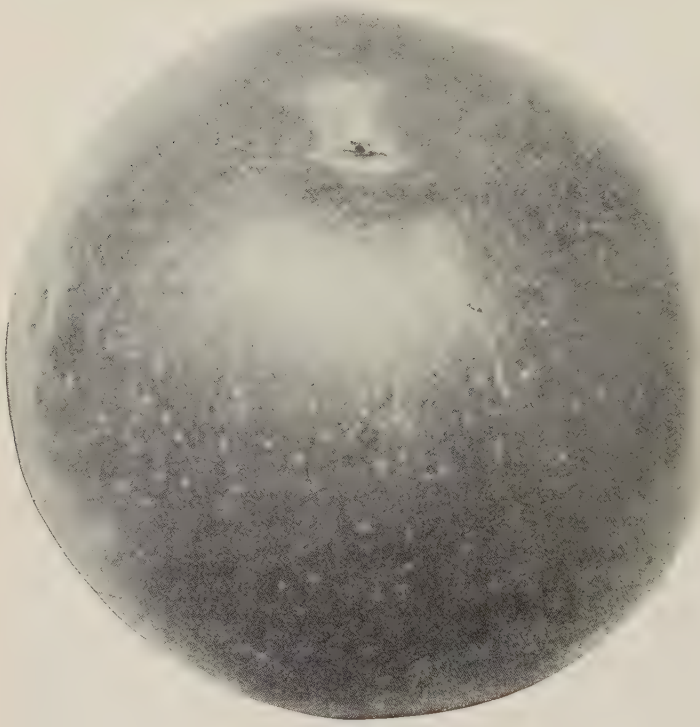
SEASON: November to March.

ADAPTATION: adapted only to the best apple districts where it is one of the most profitable varieties.



SECTION OF BALDWIN.

BAXTER (*Larue*).



BAXTER

A fine large red apple, which, however, is inferior in quality to other varieties of its season, such as Tompkins King, McIntosh and Hubbardston.

ORIGIN: with Mr. Larue, near Brockville, Leeds Co., Ontario, but introduced by Mr. Baxter.

TREE: healthy, vigorous, hardy, moderately productive.

FRUIT: size large to very large; form roundish, slightly conical; color red with obscure stripings of dark red, and numerous prominent grey dots; stem half an inch long, in a narrow, funnel form cavity, calyx nearly closed, in a large regular basin.

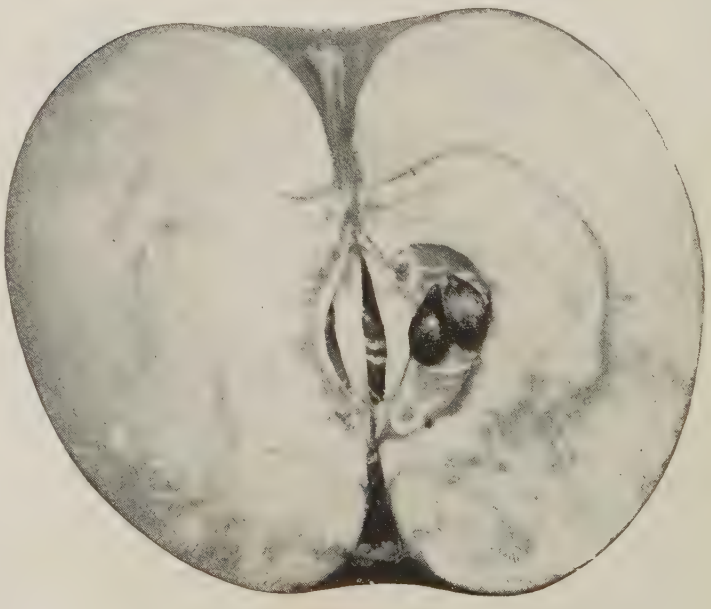
FLESH: yellowish white, often streaked with red; texture moderately firm, not very juicy; flavor slightly acid.

QUALITY: dessert medium; cooking good.

VALUE: home and foreign market, first class.

SEASON: October to January.

ADAPTATION: has proved hardy and profitable in Eastern Ontario and the Lake Simcoe District.



SECTION OF BAXTER.

BEN DAVIS.

One of the most popular market apples in the southwestern and western states because of its great productiveness, hardiness, good color and its keeping and shipping qualities. Highly valued by some growers in Canada, but condemned by others on account of its inferior quality. The tree blossoms late and therefore usually escapes damage from late frosts.

BEN DAVIS.

SECTION OF BEN DAVIS.

ORIGIN: variously credited to Tennessee, Kentucky and Virginia. Scions taken from Kentucky to Southern Illinois about 1820.

TREE: spreading, fairly vigorous, very productive, and early bearing.

FRUIT: medium to large; roundish, truncated conical, unequal; color yellow, striped and splashed with red, having scattered aureole dots; stem slender, one to one and a half inches long in a deep cavity; calyx erect, partly closed in a deep, wide basin.

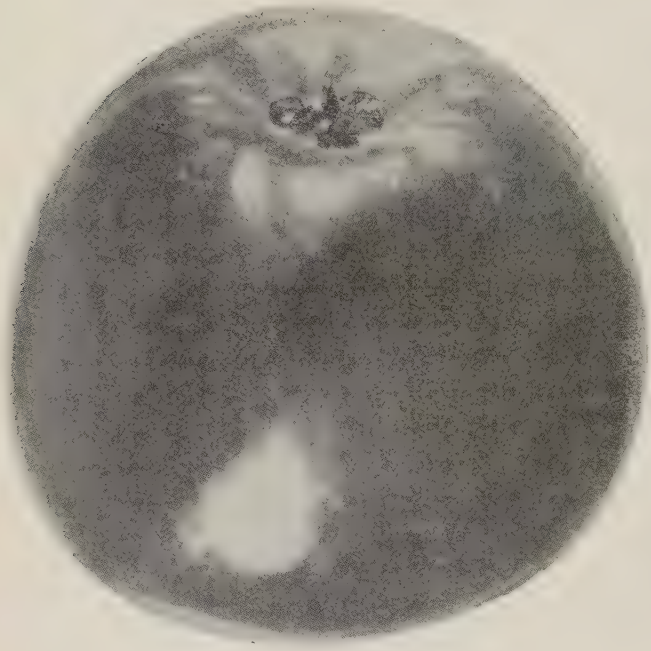
FLESH: white, not very crisp, mildly subacid.

QUALITY: dessert, poor; cooking, fairly good.

VALUE: home market, second class; foreign market, first class.

SEASON: January to May or June.

BLACK BEN DAVIS.



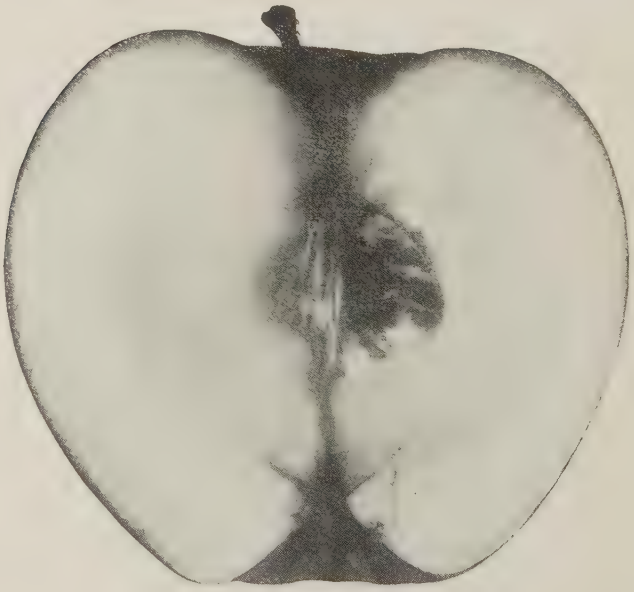
BLACK BEN DAVIS.

ORIGIN: Arkansas, on farm of Rev. M. Black.

FRUIT: large, form much like Ben Davis, the skin also becoming unctuous like that variety; color of skin very handsome, a dark solid crimson, almost black crimson on sunny side; on shaded side the yellow ground color shows through; no true stripes or splashes, but shading varies in depth of coloring; dots distinct, few, minute, yellow; cavity obtuse, medium deep, with stellate russet; stem short; basin deep, abrupt, sharp rimmed, somewhat ribbed; calyx open.

FLESH: yellowish white, moderately juicy, mild, pleasant, subacid, good

SEASON: winter.



SECTION OF BLACK BEN DAVIS.

BENONI.

A summer apple little grown in Ontario, and not highly esteemed for commercial purposes.

ORIGIN: Massachusetts.

TREE: spreading, fairly vigorous; hardy; fairly productive. A biennial bearer.

FRUIT: size scarcely medium; form oblate conical; skin rich yellow, blushed with red in the sun with a few scattered bright dots; stem half an inch long in a deep cavity; calyx erect, partly closed in a deep basin.

FLESH: color yellow; texture tender and juicy; flavor rich subacid.

QUALITY: dessert very good; cooking good.

VALUE: market second class.

SEASON: August and September.

BIETIGHEIMER.

A fall apple remarkable only for its great size and beauty. The fruit drops badly.

ORIGIN: Germany.

TREE: habit vigorous, spreading; an abundant biennial bearer; hardy.

FRUIT: size very large, sometimes immense; form round, oblate; skin whitish yellow almost covered with pale red, and having a few obscure stripes and splashes, and numerous whitish dots; stem very short, in a wide, regular shallow cavity; calyx closed in a narrow slightly corrugated basin.

FLESH: white; texture firm, juicy; flavor brisk, subacid.

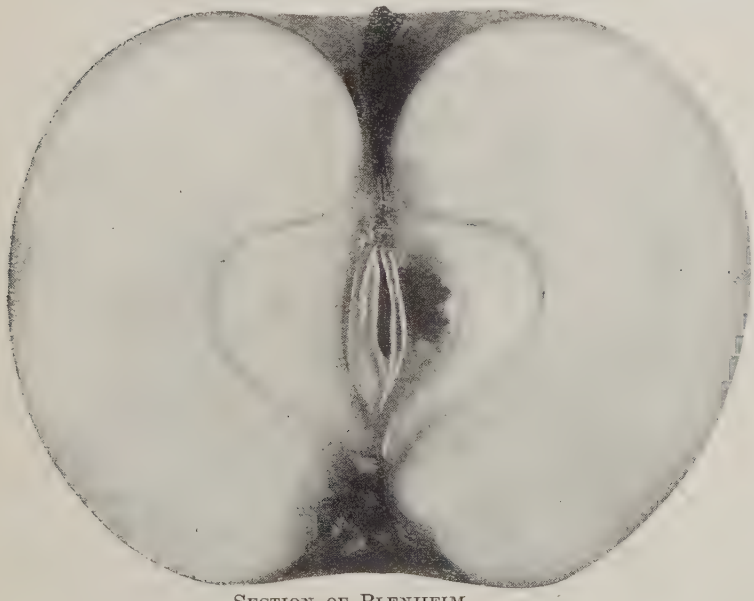
QUALITY: poor for dessert; fair for cooking.

VALUE: home and foreign market second class

SEASON: September and October.

BLENHEIM.

BLENHEIM. (*Blenheim Orange. Blenheim Pippin.*)

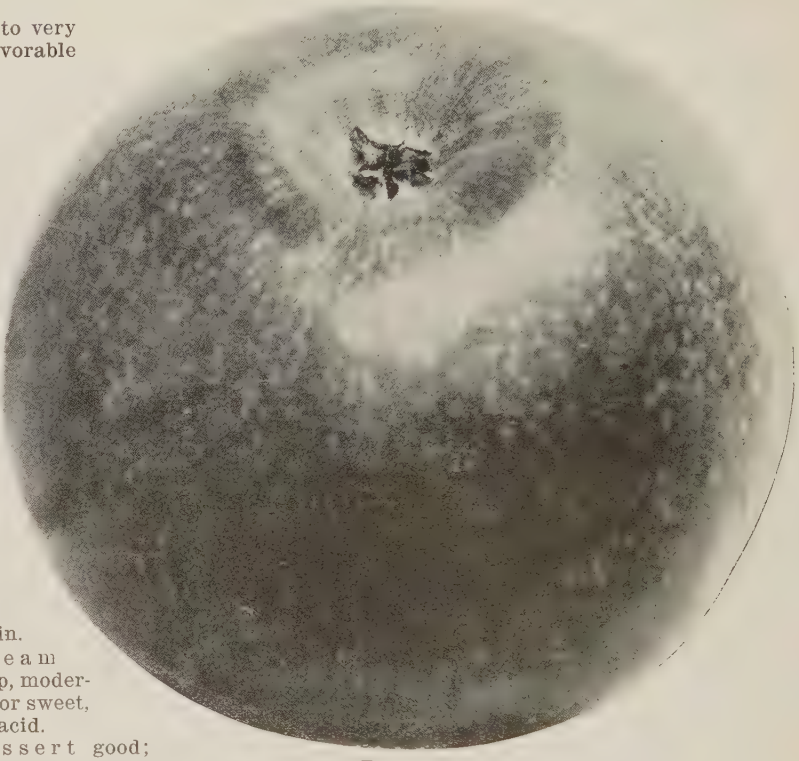


SECTION OF BLENHEIM.

An apple that is constantly gaining in favor with both grower and consumer, because of its size, its beauty, its evenness of form and general excellence for cooking and dessert purposes. It is grown in the counties of Prince Edward, Victoria, Lincoln and elsewhere, and is highly valued as a commercial apple. It certainly deserves to be more generally planted.

ORIGIN: a garden in Woodstock, England, near the residence of the Duke of Marlboro'; shown at a meeting of the London Horticultural Society in 1819, and introduced into France in 1840.

TREE: very vigorous in habit and consequently a scant bearer while young, but a regular and abundant bearer as it grows older; dwarfed on the Paradise stock, the tree becomes an early bearer.



BLENHEIM.

FRUIT: large to very large on favorable soil; form roundish oblate, slightly smaller at the apex than at the base, very regular; color yellowish, splashed with dull red on sunny side and streaked, and with deep red dots small and distinct; stem short, three-quarters of an inch long, stout, in a large russeted cavity; calyx large and very open, with short segments placed in a large green basin.

FLESH: cream white, fine, crisp, moderately juicy, flavor sweet, spicy, slightly acid.

QUALITY: dessert good; cooking very good.

VALUE: home and foreign markets, first class.

SEASON: November to January.

ADAPTATION: best apple districts only.

BLUE PEARMAIN.

A variety found in many of the older orchards; not productive enough to be profitable.

TREE: strong, vigorous, healthy; a light bearer.

FRUIT: size, very large; roundish, regular, slightly conical; color, splashes and stripes of dark purplish red over a dull yellow ground, solid red in sun, with heavy blue bloom and distinct white, russet dots; stem three-quarters of an inch long, set in a wide, deep, usually russeted cavity; calyx open in a smooth, shallow basin.

FLESH: color yellowish; texture firm, moderately juicy; flavor mild acid, rich, aromatic.

QUALITY: first rate.

VALUE: not profitable on account of unproductiveness. It is also a poor market apple.

SEASON: November to February.

BOGDANOFF.

A promising apple for the north; not recommended where Spy and Baldwin succeed.

ORIGIN: Imported from Russia for the Iowa Agricultural College by Professor J. L. Budd.

TREE: moderately vigorous; habit upright.

FRUIT: size medium; form roundish, somewhat ribbed; color green or yellowish green, often with faint bronze blush and numerous small white dots; stem short set in a shallow cavity; calyx usually closed in a somewhat furrowed, wrinkled basin.

FLESH: color white; texture tender and juicy; flavor pleasant; subacid.

QUALITY: dessert fair; cooking good.

VALUE: market second class.

SEASON: November to February.

BOIKEN.

Tested at our Simcoe station since 1896 and esteemed worthy as a commercial apple.

ORIGIN: tree imported from Prussia by Prof. Budd; named after Dike-Warden Boike, of Germany.

TREE: a fair grower; habit willowy, like Golden Russet; an early and abundant bearer.

FRUIT: size medium; form oblate conical; skin smooth, yellow with red cheek and many minute white dots; stem long in a wide, deep cavity; calyx in a wide, wrinkled basin of moderate depth.

FLESH: color white; texture firm, juicy, fine grained; flavor sprightly, refreshing, subacid.

QUALITY: dessert fair; very good for cooking.

VALUE: thought well of at Lake Simcoe Station for market.

SEASON: November to February.

BOTTLE GREENING.

An apple grown in some parts of Ontario for home uses, for which its excellent quality makes it very desirable; it is not recommended for the commercial orchard, because the fruit is rather tender for shipment to distant markets.

ORIGIN: according to Chas. Downing, this variety was found near the border line between Vermont and New York State, and takes its name from a hollow in the original tree, where workmen were accustomed to keeping their bottle.

TREE: vigorous, productive.

FRUIT: medium to large; form oblate, slightly conical; color yellowish with bright red on one side, a thin bloom and a few light dots; stem half an inch long in a deep, funnel-form cavity; calyx nearly closed, in a moderately deep, often slightly furrowed basin.

FLESH: greenish white; texture fine, tender, juicy, almost melting; flavor subacid.

QUALITY: dessert, good; very good for cooking.

VALUE: home market, first class; foreign market, second class.

SEASON: November to February.

BROCKVILLE (*Brockville Beauty*).

A seedling of Fameuse, which is as yet grown only to a limited extent in the eastern part of the Province. This fruit is inclined to run small as the trees overload.

ORIGIN: near Brockville, Ontario.

TREE: hardy, moderately vigorous; bears heavily every alternate year.

FRUIT: form conical; size medium to small; skin white, almost covered with bright red.

FLESH: color white; texture crisp, tender, breaking; flavor brisk acid.

QUALITY: dessert and cooking good.

SEASON: late August to mid-September.

CABASHEA (*Twenty Ounce Pippin*).

Not worth planting in Ontario. Through confusing its name with that of Cayuga Red Streak, often called Twenty Ounce, this apple has been widely planted in our Province. The tree is unproductive and the fruit, although large and fine in appearance, drops early and is poor in quality.

ORIGIN: unknown.

TREE: vigorous, spreading, unproductive.

FRUIT: large, roundish oblate, slightly conical; skin yellowish green, shaded dull red on the sunny side; stem five-eighths of an inch long, stout, in a wide cavity of moderate depth; calyx open in a wide shallow basin; core medium.

FLESH: white, firm, coarse, subacid, only fair for cooking, useless for dessert.

VALUE: tested twenty years at Maplehurst, Grimsby, and found unprofitable on account of unproductiveness.

SEASON: October to December.

CANADA RED.

ORIGIN: unknown; Beach says it was brought from the neighborhood of Toronto, into Western New York State.

TREE: a strong grower, productive in some places, while a shy bearer in others, and hence is not recommended.

FRUIT: medium to large; irregular oblate; skin yellow, well splashed and washed with deep, rather dull red; dots fairly numerous, large, yellow, prominent; cavity deep, narrow; stem short, slender; basin narrow, shallow, slightly wrinkled; calyx small, closed.

FLESH: yellowish, tender, moderately juicy, mildly subacid with a pleasant but not high flavor; core of medium size.

QUALITY: good.

SEASON: mid to late winter.

COLVERT.

A fairly good fall market apple, being large in size and rather attractive in appearance but of fair quality only. It has been widely planted in Ontario for market. For kitchen use it is much inferior to the Gravenstein.

ORIGIN: uncertain.

TREE: vigorous and very productive.

FRUIT: large, form oblate, slightly conical; skin greenish yellow, with cheek and faint stripes of dull red; stem stout, half an inch in length.

FLESH: color yellowish white; texture tender, moderately juicy; flavor subacid, ordinary.

QUALITY: dessert fair, cooking good.

VALUE: second class for market.

SEASON: October to December.

ADAPTATION: succeeds at Georgian Bay and Bay of Quinte stations, and is widely grown in the older apple sections of Ontario.

CAYUGA (*Cayuga Red Streak*).

A large, fine-looking cooking apple for late autumn; a good market sort; grown in limited quantities in Ontario.

ORIGIN: Connecticut.

TREE: vigorous; compact; productive; an annual bearer; on large trees, growth is straggling.

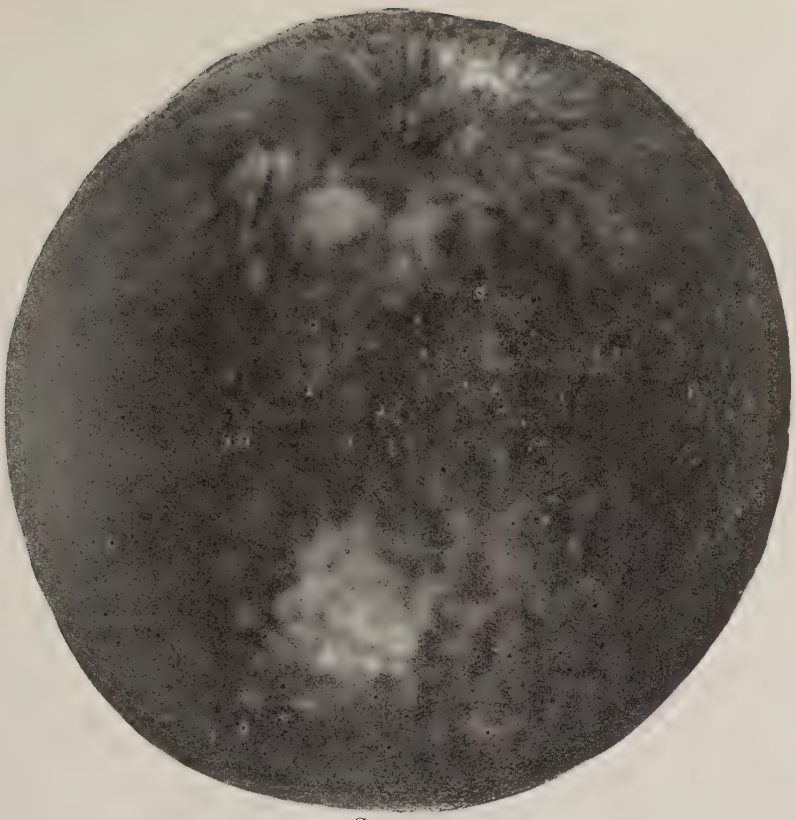
FRUIT: very large, roundish, uneven; skin greenish yellow to yellowish white, with marblings and stripes of red and crimson, and a few large grey dots; stem three-quarters of an inch long, in a deep, slightly russeted cavity; calyx small, half open in a shallow, broadly furrowed basin.

FLESH: yellowish white, texture coarse grained, tender, moderately juicy; flavor brisk, subacid, pleasant.

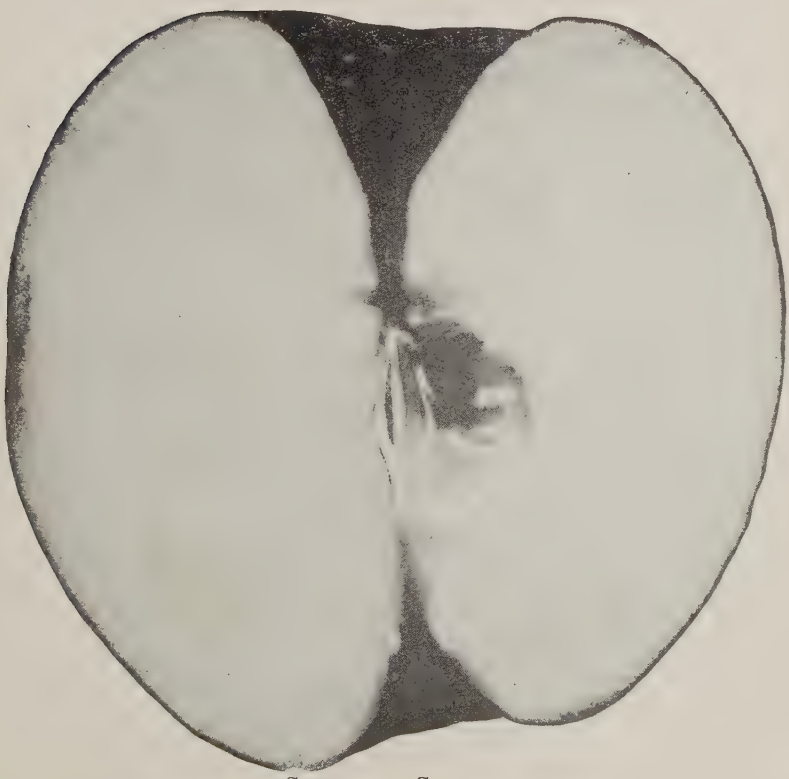
QUALITY: dessert fair, cooking good.

VALUE: market first class.

SEASON: late autumn to early winter.



CAYUGA.



SECTION OF CAYUGA.

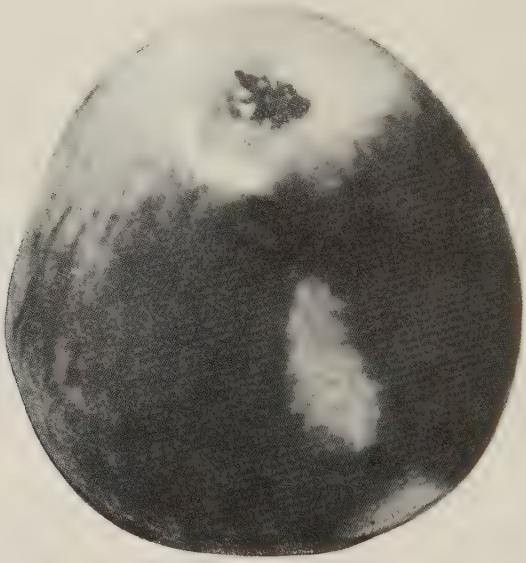
CHENANGO (*Strawberry*).

ORIGIN: Lebanon, Madison County, N.Y.

TREE: medium size, vigorous, with short, stout curved branches; fruit medium to large, elongated ovate, slightly ribbed, stem short to medium, calyx partly opened or closed, skin tough, smooth, yellowish-white, often almost entirely overspread and mottled with pinkish red conspicuously striped and splashed with bright carmine, flesh white, firm, tender, juicy, mild subacid, good to very good.

SEASON: latter part of August and through September.

Not planted very much in Ontario.



CHENANGO.

SECTION OF CHENANGO.

CHARLAMOFF (*Pointed Pipka, Arabka*).

CHARLAMOFF (*after S. B. Green*).

One of the best hardy varieties of its season which has been successfully grown at the Algoma station. It is classed by the Minnesota State Horticultural Society as one of four varieties having the first degree of hardiness.

ORIGIN: Russia; imported by Budd.

TREE: very hardy; habit spreading; growth vigorous; very productive.

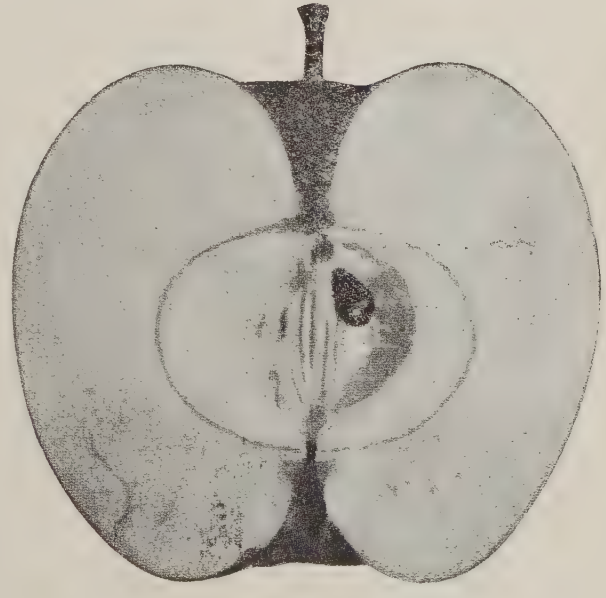
FRUIT: size about medium; form oblong, truncated, angular, ribbed; skin light yellow, covered with dark crimson stripes and splashes, with red cheek and white, minute dots; stem medium stout, in a deep, acute, russeted cavity; calyx open, sometimes closed, in a wide, shallow, wrinkled basin.

FLESH: color white, stained with red under the skin; texture somewhat coarse, juicy; flavor subacid, pleasant.

QUALITY: dessert good.

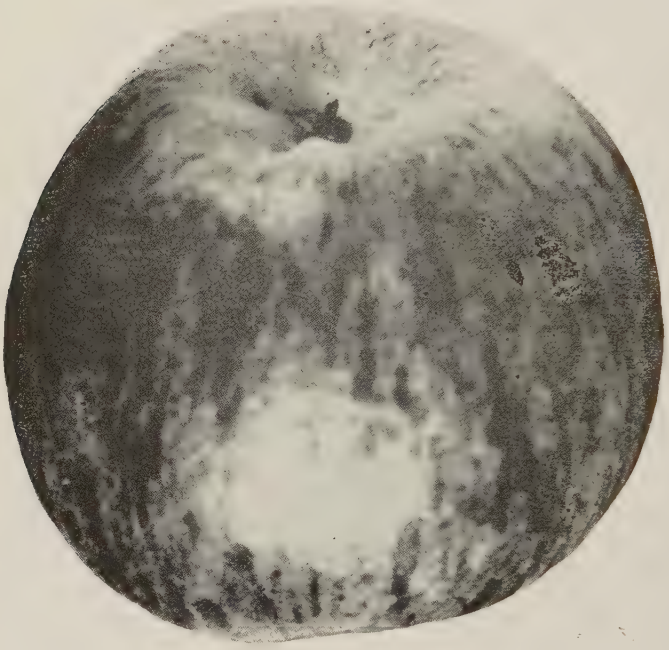
VALUE: market second class, being very perishable.

SEASON: August, just before Duchess.



SECTION OF CHARLAMOFF.

CRANBERRY PIPPIN.



CRANBERRY PIPPIN.

An apple worthy of being planted in southern Ontario as a fancy variety for export; although the quality is ordinary and not suitable for dessert its extreme beauty when opened in mid-winter, its large and even size, and the productiveness of the tree every alternate year, make it a desirable variety.

Sometimes, however, this variety is subject to warts and knots which mar its beauty.

ORIGIN: accidental, on a farm, near Hudson, N.Y.

TREE: very vigorous, healthy, spreading, and productive.

FRUIT: medium to large, roundish, oblate; skin smooth, yellow shaded and striped with two shades of red; stem slender, short, in a deep cavity; calyx closed, in a wide russeted basin.

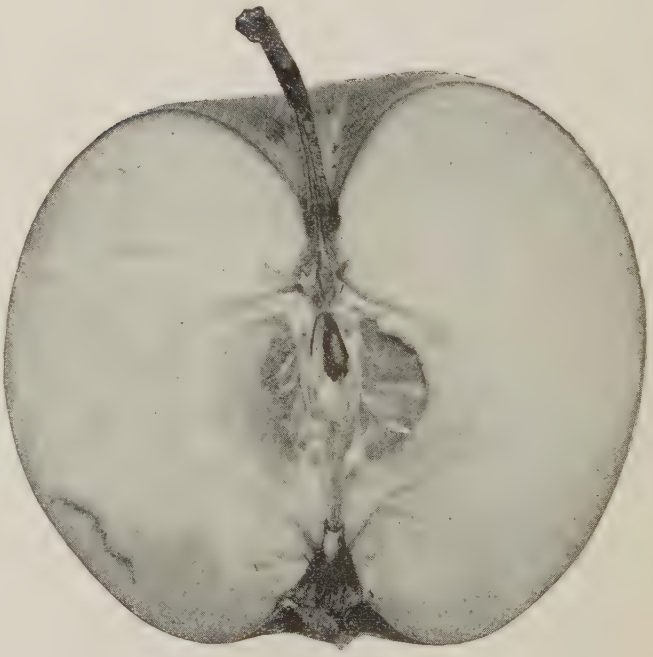
FLESH: color white; texture firm, crisp, coarse, moderately juicy; flavor subacid.

QUALITY: dessert poor; cooking fair.

VALUE: market second class.

SEASON: November to February.

ADAPTATION: southern portions of the Province, especially along the shores of the lakes.



SECTION OF CRANBERRY PIPPIN.

DUCHESS.

(*Oldenburg of Downing, Borovitsky of Royal Horticultural Society, 1824.*)

In cold storage, this apple may be profitably exported to Great Britain. It succeeds in every part of Ontario where the apple can be grown, and its beauty always brings for it the top price in the market.

ORIGIN: introduced to England from Russia about 1815.

TREE: very hardy, very vigorous and an early and abundant bearer.

FRUIT: medium to large; form regular, roundish oblate; skin greenish yellow, with bright red stripes, splashes and numerous russety dots; stalk slender, three-quarters of an inch long, set in a deep funnel-shaped cavity; calyx long, closed, in a deep broad basin.

DUCHESS.

SECTION OF DUCHESS.

FLESH: greenish, turning yellowish white at maturity; texture fine, firm and juicy; flavor brisk, refreshing acid.

QUALITY: dessert fair, cooking good.

VALUE: first class of its season for home market.

SEASON: August and September.

ADAPTATION: general. Succeeds well wherever apples are grown in the Province, and does exceptionally well on the borders of Lakes Ontario and Erie.

EARLY HARVEST.

The best apple of its season for dessert, but of late years rendered worthless in Ontario by scab, which not only spoils its appearance, but lessens its size and injures its flavor. The Early Harvest and Fall Pippin are the two apples which seem to be least able to resist this terrible fungus, and which most favor its spread. Unless, therefore, the fungus is checked by spraying, this apple must be left out of the list of desirable varieties.

ORIGIN: United States, in cultivation since about 1700 A.D.

TREE: only medium in vigor, never attaining a large size, old trees averaging from one-half to two-thirds the size of Greening trees of the same age; upright and spreading; productive, considering the size of the tree and the fruit.

FRUIT: medium round, oblate; skin smooth, bright straw color when ripe, with a few faint dots; stem short, one-half to three-quarters of an inch, in a medium cavity, often russeted; calyx closed in a shallow, slightly wrinkled basin.

FLESH: white, fine grained, juicy, crisp, tender; flavor rich, sprightly, pleasant subacid.

SEASON: late July to early August.

QUALITY: dessert good; cooking good.

VALUE: home market first class.

ADAPTATION: Succeeds in the best apple districts, but is much subject to scab.

FILLBASKET (*Kentish*).

An old English variety of great beauty of appearance and enormous size, often exceeding four inches in diameter. It is not, however, much grown in the commercial orchards of Ontario, being a fall apple, ill adapted to export, unless by cold storage, and of very ordinary quality.

ORIGIN: England.

TREE: vigorous, fairly productive, semi-hardy.

FRUIT: very large, oblate or roundish, slightly ribbed; color smooth, shiny, light green or pale yellow, sometimes almost white, and on sunny side splashed and striped with bright red; stem stout, short, set in a large cavity; calyx closed, set in a large often wrinkled basin.

FLESH: fine grained, tender and juicy; flavor mild, subacid.

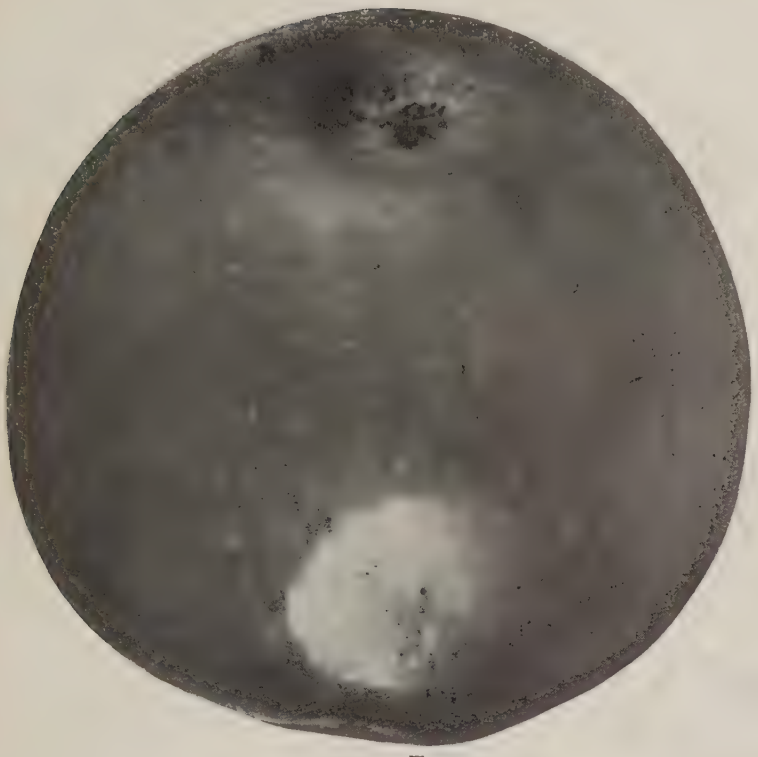
QUALITY: poor for dessert, good for cooking.

VALUE: home market second class; foreign market third class.

SEASON: October to December.

ADAPTATION: North shore Lakes Ontario and Erie, east shore Lake Huron.

FALLAWATER.



A large apple, of even size and fine appearance, which is grown for market quite extensively in Pennsylvania, Ohio, and in some of the Western States, and to some extent in Ontario. Were it more uniformly productive, we could recommend it as a profitable commercial variety.

ORIGIN: Pennsylvania.

TREE: a vigorous grower; fairly productive.

FRUIT: size large to very large; form round, regular, smooth; color pea green, shaded on sunny side with brownish red cheek, dots sparse, large light green; stem half an inch long, stout, set in a narrow, moderately deep cavity; calyx small, nearly closed, set in a shallow wrinkled basin.

FLESH: greenish white; texture fine-grained, firm, moderately juicy; flavor mild subacid, fair.

QUALITY: fair for cooking.

VALUE: home and foreign market only fair.

SEASON: December to March.

FALLAWATER.

SECTION OF FALLAWATER.

ADAPTATION: successfully grown at the Bay of Quinte station and all parts of the Province farther south; also in the Lake Huron district, but in some localities it is said to be short-lived.

FALL PIPPIN.

FALL PIPPIN.

A general favorite as a fall cooking apple and possessing a fairly good flavor as a dessert apple. It was at one time planted very freely, but of late years it has been discarded because of its liability to the apple scab.

ORIGIN: America, probably from seed of Holland Pippin.

TREE: habit stout, vigorous, spreading; head round; long lived, some trees in Niagara district are now over 100 years of age; fairly productive.

FRUIT: large; form roundish, sometimes obscurely ribbed; skin yellow, often with red cheek and a few small grey dots; stalk half to three quarters of an inch long, set in a small, moderately deep russeted cavity; calyx small, open in a small, moderately deep basin.

FLESH: greenish white; texture tender, mellow, and fairly juicy; flavor brisk, pleasant, aromatic.

QUALITY: dessert fair; cooking good.

VALUE: home market first class, foreign market second class.

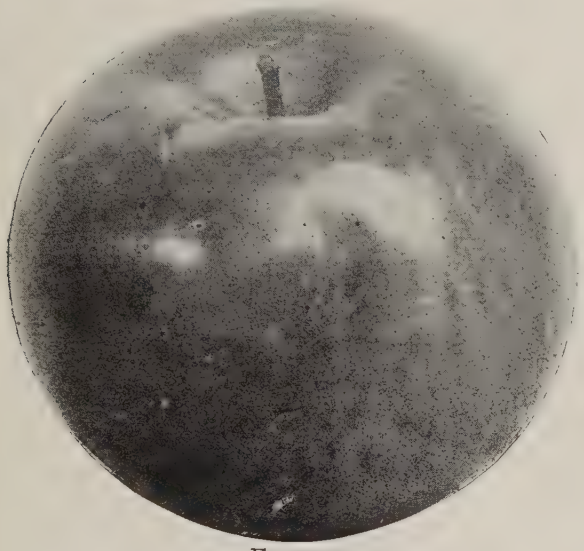
SEASON: October to December.

ADAPTATION: hardy in the best apple districts, but very subject to scab.

SECTION OF FALL PIPPIN.

FAMEUSE (*Snow, Pomme de Neige*).

The most highly valued of all table apples, and but for one fault the Fameuse would be the most profitable of all, especially in Eastern Ontario, where it attains its highest perfection. The fault is that it is quite subject to the apple scab, so that in some places the fruit is entirely worthless. The scab, however, may be quite readily controlled by proper preventive measures.



FAMEUSE.

ORIGIN: Province of Quebec, probably from seeds brought from France; it is often called Snow, from the color of its flesh.

TREE: moderately vigorous; moderately productive; hardy.

FRUIT: medium size, roundish; skin, light green, striped and shaded with two shades of red, often nearly covered with deep red; stem slender, half an inch long, in a small deep cavity; calyx small, segments often recurved, set in a shallow, slightly furrowed or wrinkled basin.

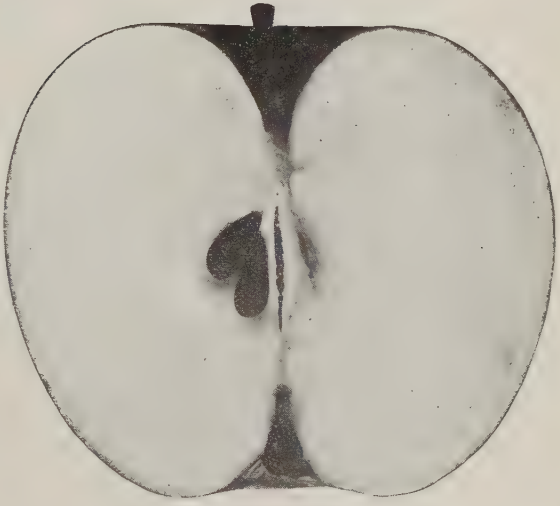
FLESH: snow white; texture tender, very fine grained, breaking, juicy; flavor, aromatic.

QUALITY: dessert first class; cooking fair.

VALUE: first class for all markets, when perfect in form and free from spots.

SEASON: October to December.

ADAPTATION: general, but specially adapted to eastern portion of the Province.



SECTION OF FAMEUSE.

FANNY

FANNY.

ORIGINATED near Strasburg, Lancaster Co., Pa., U.S.

TREE: vigorous, spreading and productive.

FRUIT: above medium size, roundish to oblate, slightly conical; skin yellow, heavily splashed and washed with deep red; dots, few, yellow, and not prominent; cavity deep, moderately open; stem, short, slender; basin of medium depth, narrow, almost smooth; calyx partly open.

FLESH: white, crisp, tender, juicy, subacid; core small.

QUALITY: good.

SEASON: September (Macoun).

SECTION OF FANNY.

GIDEON.

A very pretty apple, but inclined to rot at the core: it is less highly colored than Duchess. These faults will prevent its being popular as an export apple.

GIDEON.

ORIGIN: by Peter M. Gideon, Excelsior, Minn., U.S. From crab seed probably crossed with Blue Pearmain.

TREE: vigorous, hardy, holds fruit well, productive.

FRUIT: large, round or slightly conical; skin white, with bright red cheek shaded with deeper red splashes; dots white, obscure; cavity broad, deep, regular or slightly corrugated; stem one inch long, slender; calyx half closed, in a small, corrugated basin.

FLESH: white, flaky, crisp, juicy, subacid, fair to good.

QUALITY: dessert fair; cooking fair.

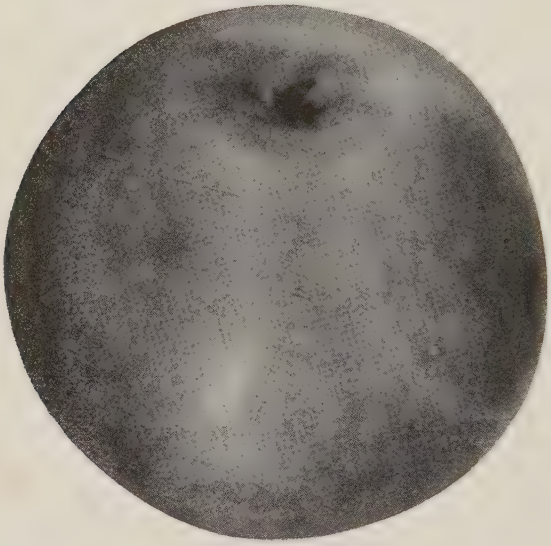
VALUE: home market second class; foreign third class.

SEASON: September to November; October at Ottawa.

ADAPTATION: only valuable in the north.

SECTION OF GIDEON.

GOLDEN RUSSET.



GOLDEN RUSSET.

This is the Golden Russet of Western New York. (It is sometimes incorrectly called American Golden Russet, which is a tender fleshed apple, only keeping until January). This apple is very valuable in the colder sections of the Ontario apple belt, the tree being comparatively hardy, and the fruit of high commercial value; in the warmer sections it is considerably grown in the older orchards, but not much planted of late years, because it is only of medium size, tedious to harvest, and inclined to drop early.

TREE: fairly vigorous, shoots slender, or willowy, speckled; habit irregular; fairly productive.

FRUIT: size medium; form roundish, slightly oblong, slightly flattened; skin covered with thick russet, occasionally showing a patch of greenish yellow; stem slender, half an inch to one inch long; not subject to scab.

FLESH: color yellowish, texture fine grained, firm, crisp; flavor aromatic, subacid.

SECTION OF GOLDEN RUSSET.

QUALITY: dessert good; cooking good.

VALUE: export first class.

SEASON: keeps till May in cold cellar, but is inclined to shrivel if the air is dry and warm.

GRAVENSTEIN.

SECTION OF GRAVENSTEIN.

A favorite commercial apple in Nova Scotia, but altogether too little cultivated in Ontario, considering its many excellent characteristics.

ORIGIN: according to Hogg, the original tree grew in the garden of the Duke of Augustenberg, at the Castle of Graufenstein in Schleswig-Holstein in Germany, and was still standing about the year 1850. Leroy inclines to accept a statement by Hirschfelt, a German pomologist, who in 1788 wrote the first description of the apple, and stated that it was brought to Germany from Italy. The earliest trace of this apple we can find dates back to about 1760. It is now widely grown in Western Europe, and is a favorite everywhere.

TREE: very vigorous, hardy and productive.

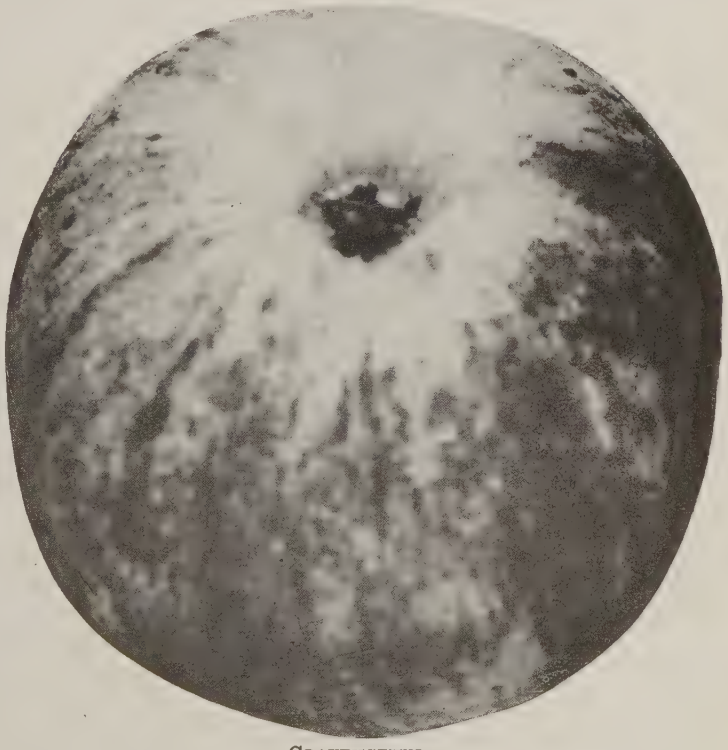
FRUIT: large to very large; form oblate conical, somewhat one-sided and more or less pentagonal; skin greenish yellow to orange, beautifully striped and splashed with two shades of red; stem stout, about half an inch in length, set in a deep, narrow cavity; calyx partially closed, wide, long segments set in a wide, irregular slightly russet basin.

FLESH: yellowish white; texture, crisp and very juicy; flavor rich, vinous and aromatic.

QUALITY: dessert, very good; cooking, good.

VALUE: home market, first class; foreign market, first class.

SEASON: September and October.

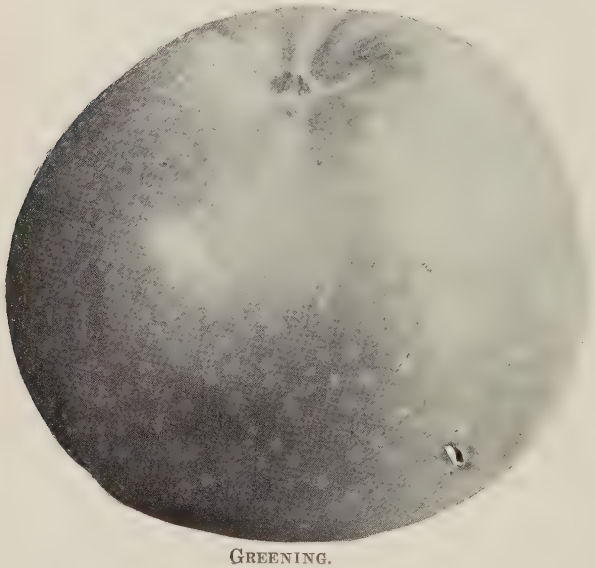


GRAVENSTEIN.

ADAPTATION: general in the best apple sections.

GREENING (*Rhode Island Greening*).

One of the staple varieties for profit in Ontario orchards. No one variety, except the Baldwin, was more widely planted in our Province previous to 1875, but since that time it has been liable to scab some seasons, especially in cases where proper spraying is neglected. Its color is against it in foreign markets, and yet, as it becomes known, the demand for it increases. It has a tendency to drop early, especially south of Lake Ontario, and, therefore, needs to be gathered in good season, about the first of October, as a rule. Remarkable instances of productiveness have been reported.



GREENING.

ORIGIN: Rhode Island.

TREE: very vigorous, spreading, a crooked grower; fairly hardy; very productive; succeeds well on a great variety of soils.

FRUIT: large, roundish, sometimes a little flattened, regular, unless overgrown; color green, becoming lighter as it ripens, often showing a blush when well exposed to the sun; dots light grey, aureole, numerous toward the apex; stem seven-eighths of an inch long in a smooth, narrow cavity; calyx partly closed in a nearly smooth shallow basin.

FLESH: white, with a greenish tint, yellowing as it matures; texture fine grained, crisp, juicy; flavor rich, slightly aromatic, pleasant, subacid.

QUALITY: dessert, medium; cooking, very good.

VALUE: home and foreign markets, first class.

SEASON: December to February.

ADAPTATION: succeeds in the best apple districts.

SECTION OF GREENING.

GRIMES (*Grimes Golden*).

GRIMES.

An apple that has a good reputation in some parts as a winter dessert apple, on account of its excellent quality and its rich golden color; not planted extensively in the commercial orchards of Ontario.

ORIGIN: Virginia; on the farm of Thomas Grimes.

TREE: moderately vigorous, branches with knobs at base; not hardy very far beyond north shore of Lake Ontario; usually a biennial or sometimes an annual bearer and a good cropper.

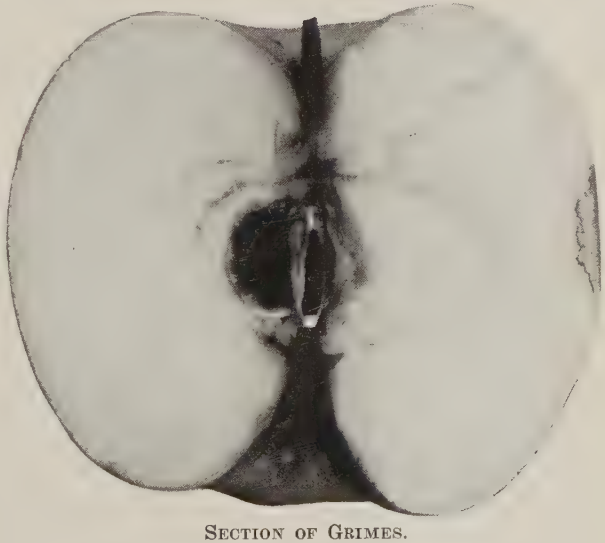
FRUIT: size medium; form roundish oblong; color rich golden yellow with russet dots; stem slender in a deep cavity; calyx partly closed in a deep, wrinkled, abrupt basin.

FLESH: yellow; texture firm, crisp, juicy; flavor rich, aromatic, spicy, subacid.

QUALITY: dessert best; cooking poor.

VALUE: market, second class.

SEASON: November to January.



SECTION OF GRIMES.

GRINDSTONE (*American Pippin*)

Valuable chiefly for its long keeping, and for cider.

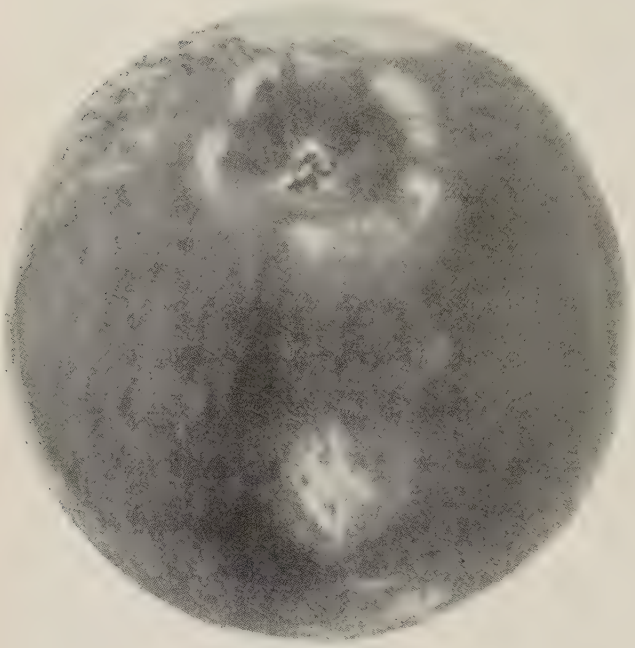
ORIGIN: United States.

TREE: hardy, vigorous, productive

FRUIT: size medium; form regular, roundish oblate; skin dull green with patches and stripes of dull red and numerous dots; stem short, stout in a deep, slightly russeted cavity; calyx large, open, in a deep, medium sized, slightly wrinkled basin.

FLESH: color yellowish white; texture firm, crisp, not very juicy; flavor brisk acid.
QUALITY: second rate for cooking; third rate for dessert.
VALUE: second class for market purposes.
SEASON: March to June.

HAAS (*Fall Queen*).



HAAS.

An old variety which was at one time popular in the colder parts of Ontario apple belt because of the hardiness of the tree, but which has now given place to the Wealthy.

ORIGIN: St. Louis, Missouri.

TREE: vigorous; habit upright, spreading; an early and an annual bearer, hardy.

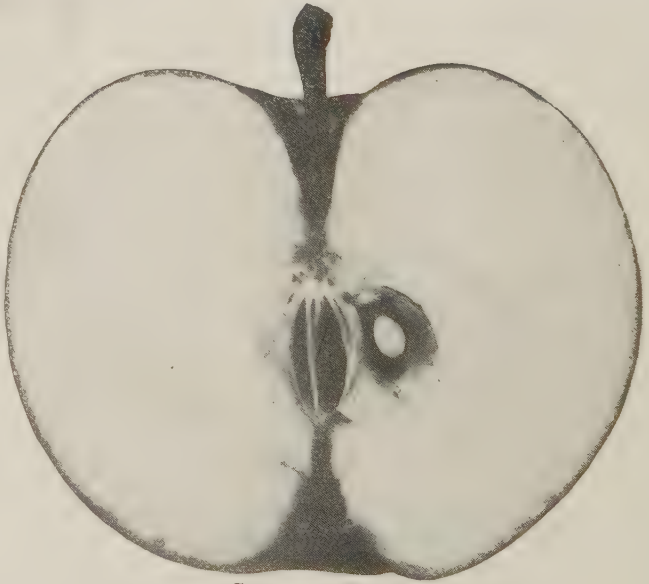
FRUIT: size medium; form oblate conical; skin thin, tough; color yellow, marbled, splashed and striped with crimson, with a few obscure white dots; stem short set in a broad cavity of moderate depth, slightly russeted; calyx half closed in an irregular, wrinkled basin.

FLESH: white, often stained with red next the skin; texture peculiar, quince like, juicy; flavor subacid, slightly astringent.

QUALITY: dessert poor; cooking fair.

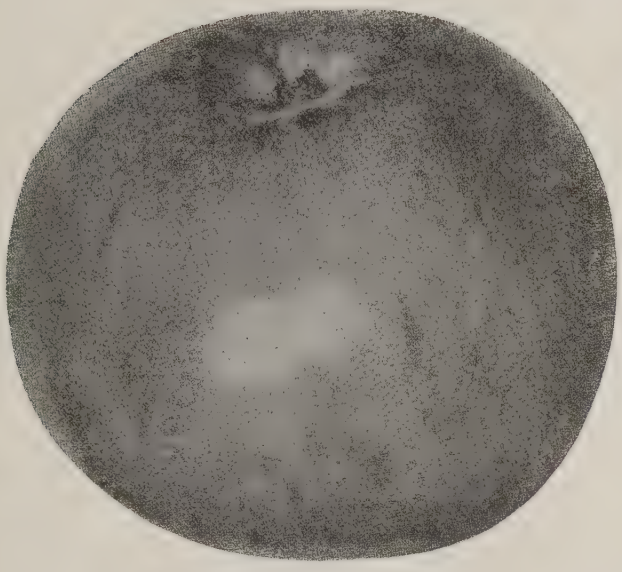
VALUE: market second or third class.

SEASON: late autumn.



SECTION OF HAAS.

HIBERNAL.



HIBERNAL (after S. B. Green).

An attractive looking cooking apple, valuable also for hardiness of tree; one of the best of the Russian apples for our colder districts.

ORIGIN: Russia.

TREE: vigorous, of strong spreading habit; healthy; very productive.

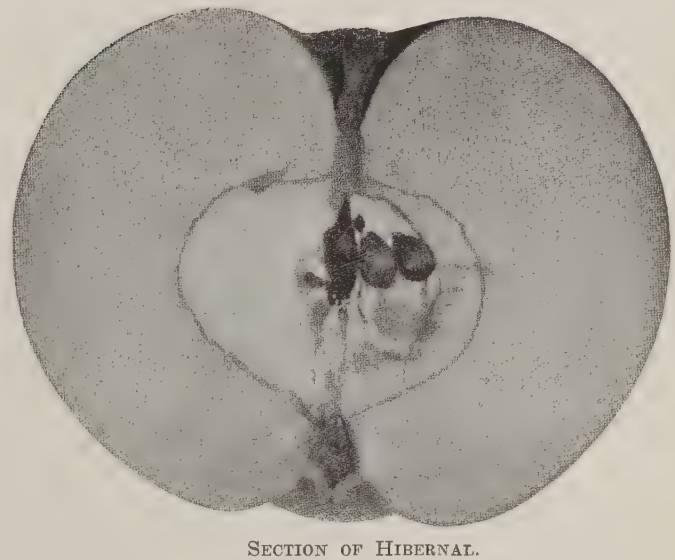
FRUIT: size large; form roundish oblate conical; skin yellowish, striped and splashed with red, with small white dots; stem medium length set in a moderately deep regular cavity with large patch of russet; calyx half open in a narrow shallow wrinkled cavity.

FLESH: color yellowish; texture, tender, crisp, juicy; flavor acid.

QUALITY: dessert poor; cooking good.

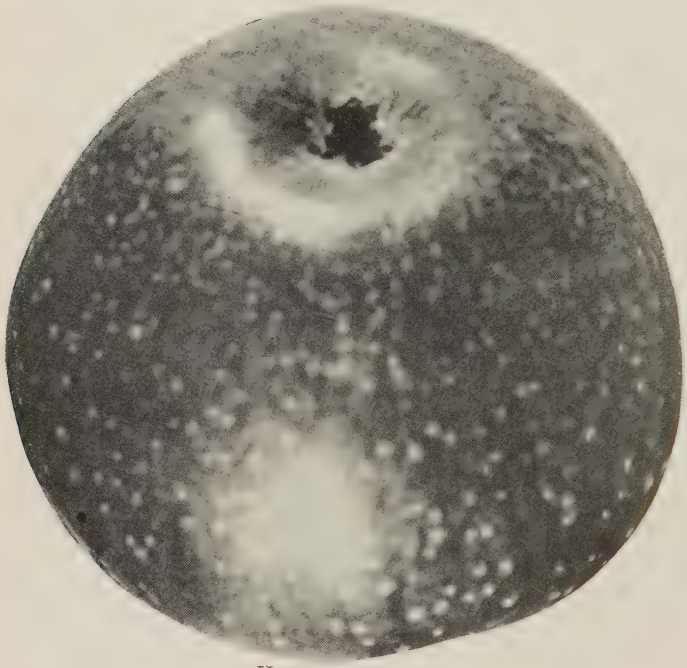
VALUE: home market in the north, first class.

SEASON: September to November.



SECTION OF HIBERNAL.

HUBBARDSTON (*Hubbardston's Nonsuch*).



HUBBARDSTON.

A first-class commercial apple for early winter. It succeeds well in the Province of Ontario, and deserves to be planted much more freely.

ORIGIN: Hubbardston, Mass.

TREE: hardy, vigorous, but somewhat subject to apple canker and therefore better top worked on some healthy grower; very productive; an early bearer.

FRUIT: size, medium to large; form round ovate, fairly regular; skin, rich yellow ground nearly covered with stripes and splashes of light rich red; stem three-quarters of an inch long, set in a narrow deep russeted cavity; calyx open in ribbed basin.

FLESH: texture tender and juicy; flavor subacid, rich, sweet and excellent.

QUALITY: very good.

VALUE: market first class.

SEASON: October to February.

ADAPTATION: succeeds in all the best apple districts.

SECTION OF HUBBARDSTON.

HYSLOP.

A well known and widely cultivated variety of hybrid crab. Its dark, rich, red color and its late season make it a valuable variety.

TREE: vigorous, of spreading habit.

FRUIT: size medium; form roundish ovate, obscurely angular; color a dark rich red, covered with heavy blue bloom, and having many obscure yellowish dots; stem about one inch and an eighth in length, set in an obtuse, regular cavity.

FLESH: yellowish, acid.

VALUE: very good for culinary uses.

SEASON: September and October.

HYSLOP.

JONATHAN.

A first class winter dessert apple, of the Spitzenburg type, valuable for the home garden. but too small to be planted for market; succeeds well in some locations.

ORIGIN: Woodstock, New York State.

TREE: of moderate vigor; shoots slender, drooping; should be top worked on a vigorous trunk; inclined to be self sterile, and needs to be planted with other varieties for proper pollination.

FRUIT: size medium, in some localities small; form longish, truncated conical, regular; skin colored dark brilliant red in sun, and striped, splashed with lighter red, with numerous small whitish dots; stem long, slender, set in a deep acute cavity; calyx small, closed, in a wide, deep, abrupt basin.

FLESH: color white; texture tender and juicy; flavor subacid, spicy, aromatic, excellent.

QUALITY: dessert very good; cooking good.

VALUE: special markets first class; export second class.

SEASON: November to February.

KING (*King of Tompkins' County*).

Said to have originated in New Jersey. On account of its excellent quality for cooking, its peculiarly rich aromatic flavor, its beautiful appearance and large size, this apple is taking the highest place in the great apple markets of the world. Unfortunately the tree is a shy bearer, and consequently unprofitable as an orchard variety, unless under exceptional circumstances. Top-grafted on Tolman Sweet, it is said to be more productive. For home use it is excelled by no apple.

KING.

TREE: a vigorous grower, of spreading habit, but not long-lived.

FRUIT: large, roundish, uneven; skin yellowish, shading off from red to dark crimson; stem short and stout, inserted in a wide, deep, somewhat irregular cavity; calyx closed in a broad, shallow, slightly corrugated basin.

FLESH: yellowish white, crisp and juicy, moderately firm; flavor rich, agreeable, aromatic.

QUALITY: dessert and cooking, very good.

VALUE: home market first class; export first class.

SEASON: October to February in Southern Ontario.

ADAPTATION: not hardy at Simcoe station unless top grafted on Tolman Sweet, or some other hardy stock, and, therefore, it is not recommended for general planting in northern sections.

SECTION OF KING.

LADY.

A beautiful little apple for the amateur's collection, and very highly valued where known for a dessert apple, having a pleasant flavor and great beauty. In Europe the apple is known as Api, but in America it has become known as the Lady apple.

ORIGIN: France.

TREE: upright habit and bears fruit in clusters, vigorous, only fairly hardy and productive.

FRUIT: very small, flat oblate. Color green, turning to yellow, half covered with a rich red cheek, and many tiny dots which are more numerous towards the apex. Stem slender, half an inch long, set in a deep regular cavity. Calyx closed in a small wrinkled basin.

FLESH: greenish white; texture fine grained, crisp and juicy; flavor pleasant.

QUALITY: dessert, very good; cooking too small to be of any value.

SEASON: December to May.

ADAPTATION: successfully grown as far north as the Bay of Quinte station.

LA VICTOIRE.

This variety has not, so far, proved very productive, but is a handsome apple, and on account of its season and hardiness will probably prove useful in the north.

ORIGIN: near Grenville, Que. Probably a seedling of Fameuse.

TREE: hardy and a strong moderately spreading grower.

FRUIT: above medium size, oblate, regular; skin greenish yellow, almost covered with crimson; dots fairly numerous, gray, distinct; cavity of medium depth and width, slightly russeted; stem short and stout; basin of medium depth and width, almost smooth; calyx open and medium in size.

FLESH: white, tinged with red, rather coarse, moderately juicy, mildly subacid, with a pleasant flavor; core small.

QUALITY: good.

SEASON: Midwinter. (*Macoun.*)

LIVLAND RASPBERRY (*Lowland Raspberry*).

A handsome hardy summer apple of very good dessert quality, one of the best summer apples for home use, but drops rather badly and ripens unevenly.

ORIGIN: Russia.

TREE: moderately upright, vigorous, moderately productive.

FRUIT: medium to large, roundish to oblate, conic, angular, color pale yellow, more or less marked, splashed and washed with bright red with a few pale yellow indistinct dots; stem short to medium, moderately stout in a narrow cavity of medium depth; basin shallow, narrow, slightly wrinkled.

FLESH: white tinged with red, crisp, tender, juicy, subacid with a good flavor.

QUALITY: dessert very good.

SEASON: middle to last of August.

ADAPTATION: quite hardy, having been fruited in Southern Manitoba. (*Macoun.*)

LOUISE (*Princess Louise, Woolverton*)

An apple of great value for the home garden as a choice dessert variety, but probably not sufficiently productive to be profitable in the commercial orchard.

ORIGIN: at Maplehurst, near Grimsby; a chance seedling of the Snow and first known as Woolverton. Samples were first exhibited by Mr. L. Woolverton at a meeting of the Ontario Fruit Growers' Association at Hamilton, where it was given the name Princess Louise, after Her Royal Highness, wife of the then Governor-General, His Excellency the Marquis of Lorne.

TREE: of slender habit; fairly vigorous; hardy; moderately productive.

FRUIT: roundish, size medium; skin greenish yellow, of bright waxy lustre, with cheek of clear bright carmine; stem stout, three-quarters of an inch long, in a narrow, moderately deep cavity; calyx half open, in a broad, shallow, slightly plaited basin.

FLESH: pure white; texture tender, fine, somewhat crisp, juicy with rich aromatic flavor.

QUALITY: dessert very good; cooking fair.

VALUE: home market, first class.

SEASON: November to February.

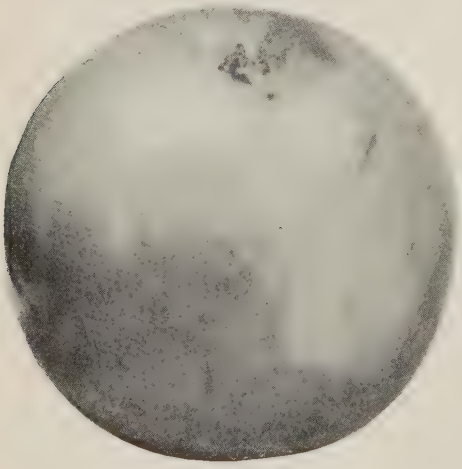
LONGFIELD.

A late fall variety, valued chiefly for its hardiness; too small to be profitable where better kinds will succeed.

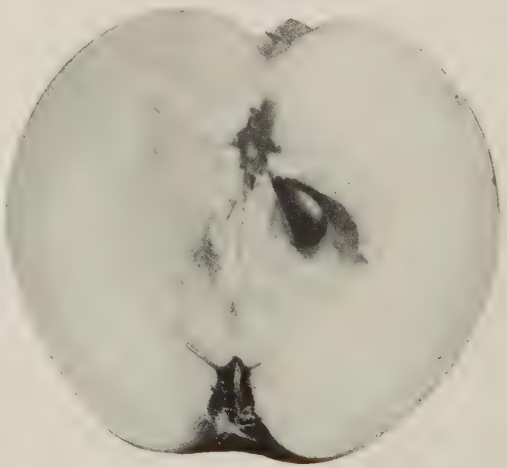
ORIGIN: Russia.

TREE: a poor straggling grower; very hardy; very productive, inclined to overbear and requires thinning; an early bearer.

FRUIT: size small; form roundish conical; skin yellow, with bright red cheek, and a few large yellowish dots; smooth; tender, showing bruises quickly; stem short, set in a deep regular usually slightly russeted cavity; calyx half open in an abrupt, wrinkled basin.



LONGFIELD.



SECTION OF LONGFIELD.

FLESH: white; texture very tender, juicy; flavor pleasant, subacid.

QUALITY: dessert fair; cooking good.

VALUE: market third class.

SEASON: October and November.

McINTOSH (*McIntosh Red*).

A very fine dessert apple for early winter use. At Ottawa and along the St. Lawrence and other places where conditions are favorable, it is counted one of the best dessert apples of its season, adapted and profitable for export.

ORIGIN: with John McIntosh, Dundela, Ont., on whose farm the original tree was alive until quite recently. In 1912 a monument was erected at Dundela in honor of this tree.

TREE: hardy, vigorous; fairly upright; fairly productive; an annual bearer; of Fameuse type.

McINTOSH RED.

FRUIT: size medium to large; form roundish; color, deep crimson in sun, light crimson on shady side, inclined to show broken stripes and yellow dots, often with a heavy blue bloom; stem one inch in length, stout, set in a wide, and often somewhat irregular cavity, which is green at bottom; calyx closed in a smooth, regular, rather shallow basin.

SECTION OF McINTOSH RED.

FLESH: snow white; texture crisp, tender, very juicy; flavor slightly subacid, aromatic, perfumed near the skin.

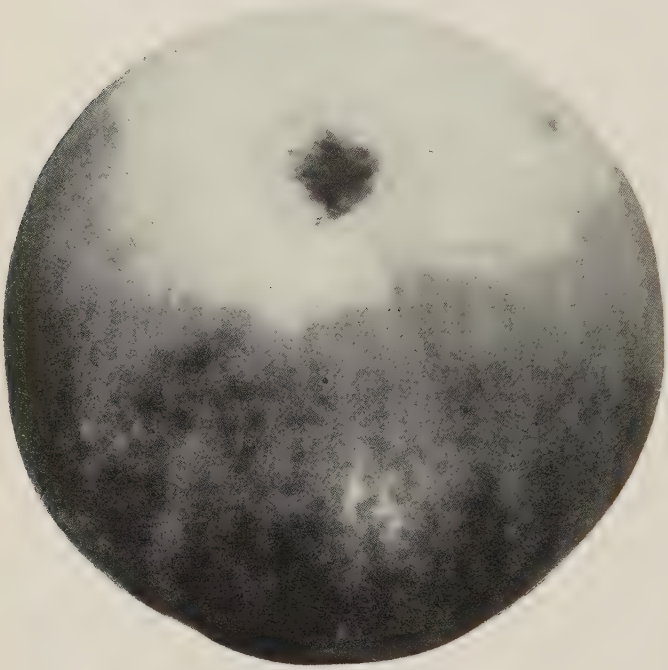
QUALITY: dessert first class.

VALUE: home market first class.

SEASON: November to January; quite ready for eating by November first.

ADAPTATION: general; attains to best development in the northern apple growing sections, such as the St. Lawrence.

MAIDEN BLUSH.



SECTION OF MAIDEN'S BLUSH.

A valuable apple for the amateur because of its extreme beauty, but not considered a very profitable market variety by Ontario fruit growers.

ORIGIN: New Jersey.

TREE: moderately vigorous grower, and productive.

FRUIT: size medium to large; form oblate, very regular, but slightly one-sided; color lemon yellow with beautiful crimson blush; stem three-quarters of an inch long, set in a moderately deep, wide cavity; calyx closed, in a shallow, slightly wrinkled basin.

FLESH: color white; texture fine, tender; flavor pleasant; sub-acid.

QUALITY: dessert, fair; cooking, good.

SEASON: September to November.

MAIDEN'S BLUSH.

McMAHON (*McMahon White*).

A good sized and rather attractive fall apple, valuable especially for the hardiness of the tree; succeeds well at the Central Experimental Farm, Ottawa; too tender in flesh to ship well.

ORIGIN: from seed of Alexander, planted about 1860 by A. L. Hatch, Ithaca, Wisconsin.

TREE: very hardy; very strong grower; productive.

FRUIT: size large, uniform; form roundish oblate, slightly conical, obscurely ribbed; skin light yellow, becoming white at full maturity, often with blush of red and white dots; stem short, about half an inch long, stout, in an acute, deep, russeted cavity; calyx half open in a narrow, moderately deep, slightly wrinkled basin.

FLESH: color white; texture nearly fine, tender, juicy; flavor subacid.

QUALITY: dessert fair; cooking very good.

VALUE: home market first class; export third class.

SEASON: October to January.

MARTHA.

A hybrid crab.

ORIGIN: by Peter M. Gideon, Excelsior, Minnesota.

TREE: medium size, moderately vigorous, spreading; very hardy; early bearing and a reliable cropper.

FRUIT: large, oblate, very regular; surface smooth, yellow, almost entirely covered with a beautiful bright red, with a bluish bloom, no stripes or splashes; dots white, conspicuous; cavity wide, regular; stem long; basin very wide, nearly flat; segments often nearly obsolete, core closed.

MARTHA.

SECTION OF MARTHA.

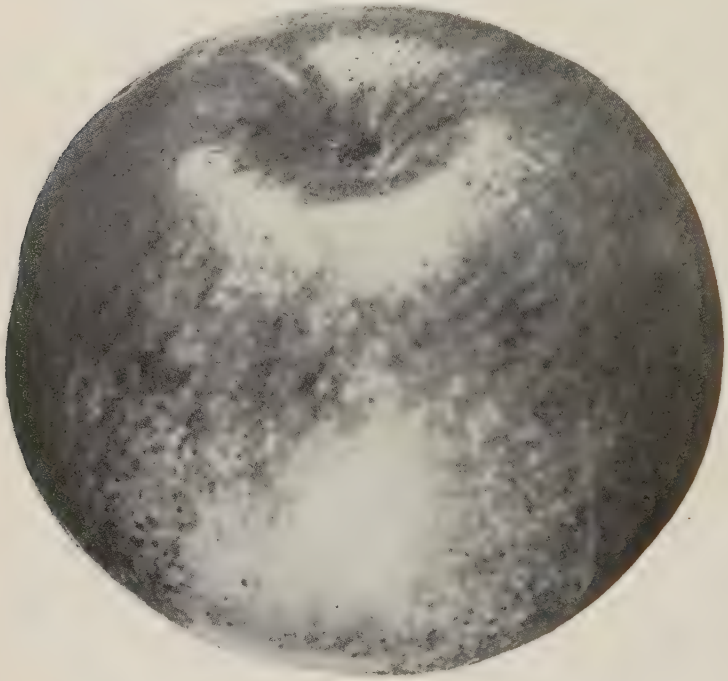
FLESH: yellowish white, acid.

QUALITY: one of the best of its class for culinary purposes.

SEASON: early to mid-September.

MANN.

The Mann apple is not very highly recommended for extended orchard planting in Ontario, because of its rather unattractive green color in shipping season. The tree has the merit of being a productive variety and an early bearer, but the fruit is inclined to drop early, and to be small when not thinned.



MANN.

ORIGIN: New York State, a chance seedling introduced by Dr. Mann, after whom it was named by the Western New York Horticultural Society.

TREE: hardy, moderately vigorous, spreading, with slender branches; a little slow coming into bearing and inclined to overbear.

FRUIT: of large size when thinned and well cultivated, form roundish, oblate, regular; skin dull green, yellowing at maturity, nearly covered with light green dots; stalk half an inch long in a large, slightly russeted cavity; calyx closed in a somewhat abrupt, furrowed and wrinkled basin.

FLESH: yellowish, moderately firm, juicy, agreeable, subacid.

QUALITY: dessert poor; cooking good.

VALUE: first class for home or foreign market, but the best prices are not always obtained for the fruit, owing to its unattractive color.

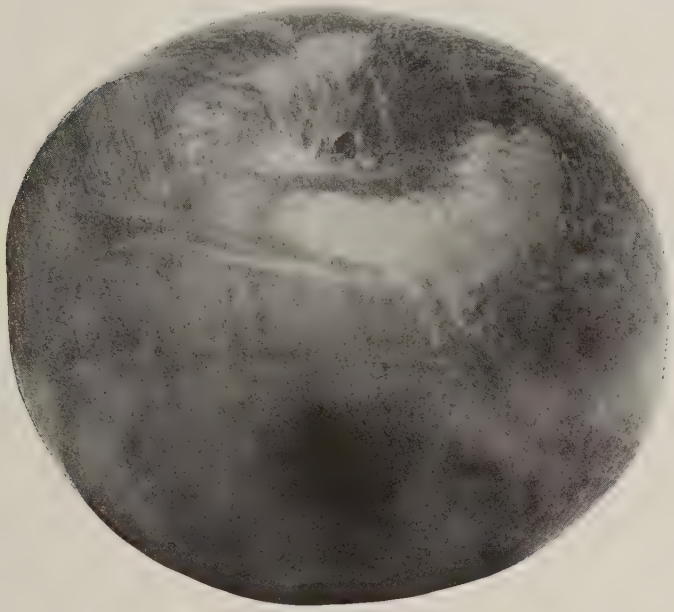
SEASON: January to April.

SECTION OF MANN.

MILWAUKEE.

One of the best hardy winter apples for the commercial orchards in the northern belt of apple culture in Ontario; tested several years at the St. Lawrence station, and reported as one of the most promising winter apples for profit yet tested for that district; a fairly good shipper, but its lack of color is a serious fault as a market apple.

ORIGIN: a seedling of Duchess of Oldenburg, by Geo. Jeffrey, Milwaukee, Wisconsin.



MILWAUKEE.

TREE: growth moderately vigorous; habit spreading; very hardy; very productive; an early bearer; foliage dark green, abundant; shows characteristics of the Duchess.

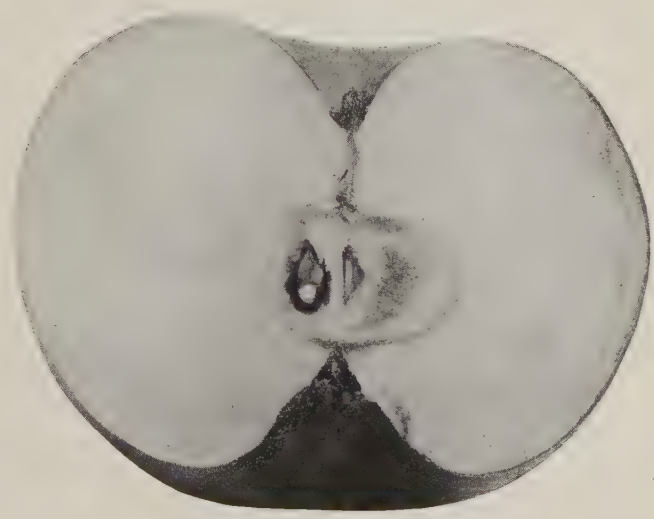
FRUIT: large, form oblate, flattened, slightly angular; skin yellowish green blushed and streaked with bright red and crimson on the sunny side; stem slender, one-half inch long in a large, deep, often russeted cavity; calyx half closed in a wide, deep wrinkled basin.

FLESH: color yellowish white; texture tender, crisp, juicy; flavor acid.

QUALITY: dessert fair; cooking very good.

VALUE: for near markets first class.

SEASON: December to March.



SECTION OF MILWAUKEE.

NEWTOWN PIPPIN (*Yellow Newton Pippin, Albermarle*).

The highest priced apple that reaches the English market, but not much grown in Ontario.

ORIGIN: Newtown, Long Island.

TREE: a slow grower and only moderately hardy; needs rich soil and good cultivation.

FRUIT: medium to large; form, roundish oblate, with broad obscure ribs terminating in five crowns at the apex; color, dull green, becoming yellowish during the winter, with reddish-brown tinge on the sunny side, and dotted with small grey russety dots; stem three-quarters of an inch long, inserted all its length in a deep, wide, funnel-shaped cavity; calyx small, closed in a small, moderately deep furrowed basin.

FLESH: greenish white; texture firm, crisp, juicy; flavor, rich and highly aromatic.

VALUE: home markets, first class; foreign market, first class.

QUALITY: cooking, first class; dessert, first class.

SEASON: January to May, at its best in March.

ADAPTATION: only to certain favored sections.

NORTH STAR (*Dudley Winter*).

Originated in Maine. Fruit roundish; size above medium to large; cavity, open, deep, slightly russeted; stem medium length, slender; basin deep, medium width, slightly wrinkled; calyx partly open; color pale yellow, streaked and splashed with deep, lively red; dots few, small, pale yellow, indistinct; skin moderately thick, tender; flesh yellow, rather coarse, tender, moderately juicy; core small; subacid, pleasant flavor; quality above medium, almost good; season late September to early winter. Tree vigorous and productive. A handsome apple, about the same season as Wealthy. This variety is succeeding well in some of the colder parts of the country. (*Macoun.*)

NORTHWESTERN GREENING.

One of the winter commercial apples, adapted especially for colder sections; attractive in appearance. It is inferior in flavor and quality to the Rhode Island Greening.

ORIGIN: Wisconsin; introduced in 1872 by E. W. Daniels.

TREE: productive, but long in coming into bearing; hardy, in Minnesota reckoned to be of the second degree of hardiness, or in the same class as the Wealthy.

FRUIT: size large to very large; form roundish, slightly conical; color green, becoming yellowish, with small white dots; stem about half an inch long in a regular funnel-shaped cavity of moderate depth; calyx closed, in a regular, slightly wrinkled basin.

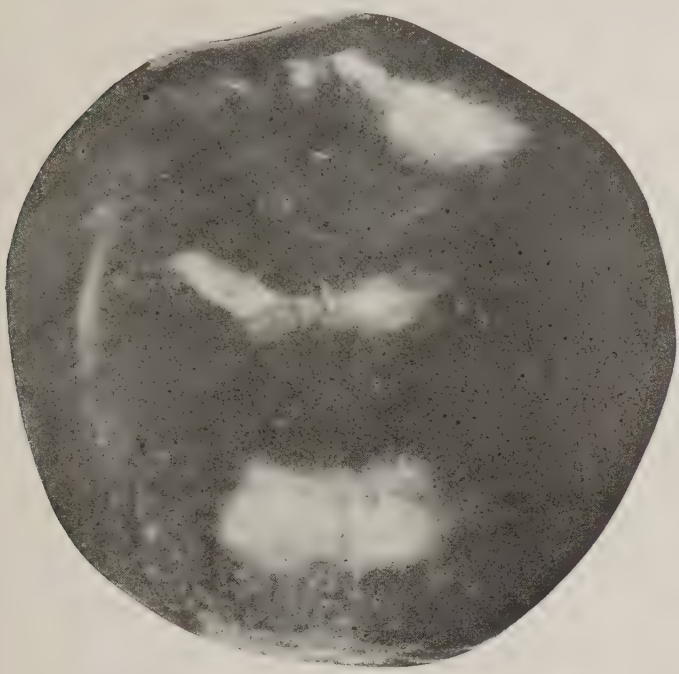
FLESH: color greenish white; texture fine grained, firm, juicy; flavor sprightly, subacid, pleasant.

QUALITY: dessert, good; cooking, good.

VALUE: home market, first class.

SEASON: winter.

ONTARIO.



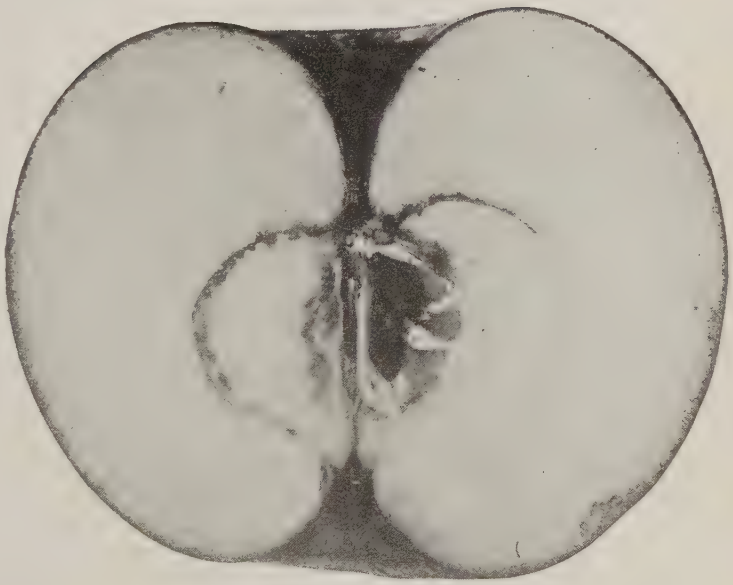
ONTARIO.

This is a native of Ontario, as its name indicates. It was originated by the late Charles Arnold, of Paris, Ontario, by crossing Wagener and Spy. Its early and abundant bearing, the good quality and even size of the fruit, are points in its favor as an export variety. It was tested in a commercial way for some years at the Bay of Quinte station, where it was counted profitable.

ORIGIN: Paris, Ontario.

TREE: fairly hardy, moderately vigorous, somewhat spreading; very productive; an early bearer and short lived.

FRUIT: large, oblate, slightly ribbed; sides unequal; skin yellowish, nearly covered with bright red, with a few scattered small white dots with bluish bloom; stem seven-eighths of an inch long, in a deep, russeted uneven cavity; calyx closed in a moderately deep, corrugated basin.



SECTION OF ONTARIO.

FLESH: white with green tint, yellowing slightly as it ripens; texture fine grained, tender, juicy; flavor mild, subacid, sprightly, aromatic.

QUALITY: very good for all purposes.

SEASON: November to April.

ADAPTATION: Southern Ontario to north shore of Lake Ontario and other good apple districts.

ORANGE.

A fairly good dessert variety of hybrid crab.

ORIGIN: United States.

TREE: a slow grower; productive.

FRUIT: size medium; form round, slightly flattened at the ends; color light orange, with minute white dots and russet veins; stem slender, one and a quarter inches in length, set in a deep, open cavity; calyx closed, in a furrowed basin.

FLESH: color yellowish, yellow veinings; texture a little dry; flavor mild, pleasant, acid.

SEASON: September to November.

PATTEN (*Patten Greening*).

ORIGIN: Iowa.

TREE: hardy; moderately vigorous; very productive.

FRUIT: large oblate; cavity deep, medium width, russeted; stem short; basin deep, medium width; calyx open, large; skin pale yellow with traces of pale green, with a pink blush; dots moderately numerous, pale green, distinct; bloom, slight; skin, moderately thick.

FLESH: yellow, moderately juicy, tender, coarse; core, small; subacid; pleasant flavor.

QUALITY: above medium.

SEASON: October to mid-November. Hardier than Wealthy and useful where that variety will not succeed. (*Macoun.*)

PHOENIX.

A fairly profitable commercial apple in some parts. It is grown in Northumberland County and in other apple sections in the Province, and by some growers is ranked equal to the Baldwin for profit.

ORIGIN: Illinois.

TREE: healthy and productive.

FRUIT: medium to large; roundish, sometimes quite one-sided; color greenish yellow ground well covered with deep red, obscurely striped with a darker shade, and having a few small grey dots; russeted about the cavity and green about the basin; stem one half an inch long in a funnel-shaped cavity; calyx half closed.

FLESH: creamy white, coarse grained, somewhat juicy; flavor mild, acid, pleasant.

QUALITY: dessert, poor; cooking, good.

VALUE: first class for export, if shipped early.

SEASON: December to February.

PORTER.

"Fruit above medium, oblong ovate, conical, regular, often ribbed at apex; bright yellow, sometimes a dull blush in the sun; stalk one inch long, slender, cavity rather small; basin narrow; flesh tender, rich, rather acid, of fine flavor. Fair and productive. Early autumn. (*American Fruit Culturist.*)

It is desirable for planting for home use or for some local market, but generally it is not regarded as a profitable commercial variety.

PEERLESS.

PEERLESS.

A remarkably attractive fall market or shipping apple; grows bright and clean, like Duchess, without blemishes; growing in favor. Caston grows this apple to perfection near Lake Simcoe, Ontario.

ORIGIN: seedling of Duchess: Minnesota, 1865.

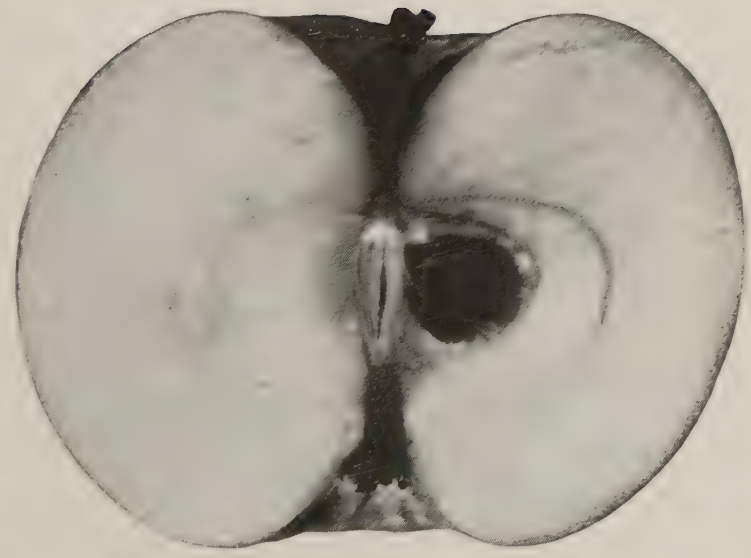
FRUIT described by Hanson as follows: large, roundish oblate, regular; surface greenish, striped and splashed rather thinly with dull red, slightly marbled on sunny side; cavity wide with radiating green (a characteristic); stem short; basin wide, usually abrupt and wavy; calyx closed or half open.

FLESH: firm, juicy, subacid, good.

QUALITY: cooking, first class.

COMMERCIAL VALUE: first class.

SEASON: September to November. *(Woolverton.)*



SECTION OF PEERLESS.

PEWAUKEE.

A good commercial apple for the northern limits of the Ontario apple belt where Spy and Baldwin are tender; but not as hardy as was at first supposed. It is not gaining in popularity because the fruit is deficient in color and quality and drops badly.

PEWAUKEE.

ORIGIN: seed of Oldenburg crossed with Northern Spy, raised by G. P. Peffer, Pewaukee, Wisconsin.

TREE: hardy, but not equal in this respect to Wealthy; vigorous; habit: round topped with upright centre; an annual bearer.

FRUIT: size large; form roundish oblate, irregular, unequal; color yellow striped and splashed with red; dots whitish; bloom grayish; stem short, half an inch, sometimes fleshy at point of insertion, set in small shallow often flat cavity, sometimes lipped; calyx half open, large, in a small shallow, corrugated basin.

FLESH: color yellowish white with yellow veinings; texture firm, rather coarse, juicy; flavor fair, subacid.

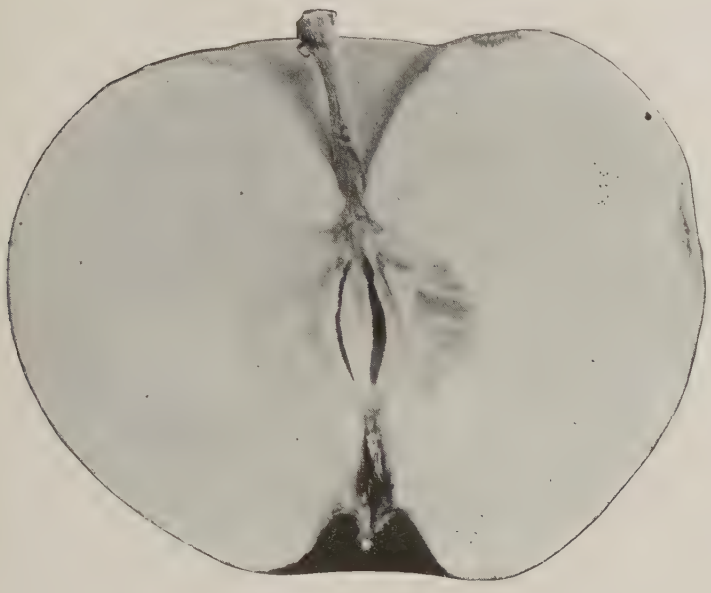
QUALITY: dessert fair; cooking good.

VALUE: home or foreign market first class.

SEASON: December to March.

SECTION OF PEWAUKEE.

PRIMATE.



SECTION OF PRIMATE.

A fine dessert apple for the home garden; too tender for distant shipment.

ORIGIN: uncertain, probably Western New York.

TREE: hardy, vigorous, symmetrical, very productive.

FRUIT: medium to above medium; form oblate conical; skin light yellow, with crimson blush on sunny side; stem about one inch long inserted in a large deep furrowed cavity; calyx closed in an abrupt, moderately deep, somewhat corrugated basin.

FLESH: color white; texture tender, juicy, with a very pleasant, subacid flavor.

QUALITY: dessert very good; cooking good.

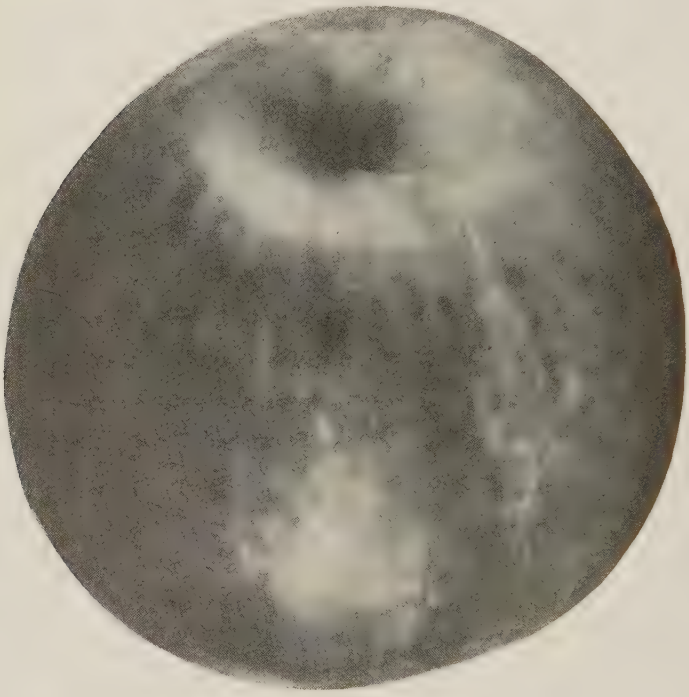
VALUE: home market first class; foreign market second class.

SEASON: August and September.

ADAPTATION: succeeds in best apple districts.

PRIMATE.

RIBSTON (*Ribston Pippin*).



RIBSTON.

A highly esteemed English apple, largely planted in Ontario previous to 1860, but of late not so popular in commercial orchards.

ORIGIN: Ribston Hall, near Knaresborough, England.

TREE: moderately vigorous; fairly healthy; not hardy at the north; productive; an early bearer.

FRUIT: size medium or above; form roundish, slightly conical; skin rough; color russety yellow with stripes of red and often a red shade on sunny side; stem short, set in a wide often somewhat russeted cavity; calyx small, closed in a narrow angular, ribbed basin.

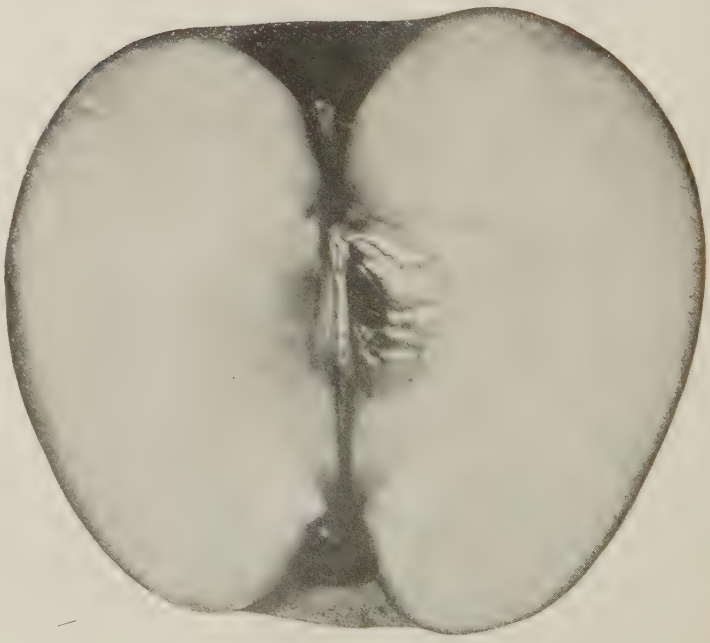
FLESH: yellow; texture crisp, firm, granular, juicy; flavor rich, aromatic, subacid.

QUALITY: dessert good; cooking very good.

VALUE: home market first class.

SEASON: November and December; keeps till January in a cool cellar.

ADAPTATION: succeeds in best apple districts, although it is somewhat hardier than Baldwin or Greening.



SECTION OF RIBSTON.

ROXBURY (*Roxbury Russet*).

One of the staple export varieties in many parts of Southern Ontario, because of its long keeping qualities. It resists scab well, but is inclined to drop early from the trees, resembling the Greening in this respect.

ORIGIN: Massachusetts.

ROXBURY RUSSET.

TREE: fairly vigorous, spreading like Greening, but flatter in form of top.

FRUIT: medium to above medium, roundish, oblate, sides not equal; skin tough, green, nearly covered with russet, and having a brownish red cheek when fully exposed to the sun; stem half to three-quarters of an inch long in a medium sized, regular cavity; calyx closed in a round medium sized basin.

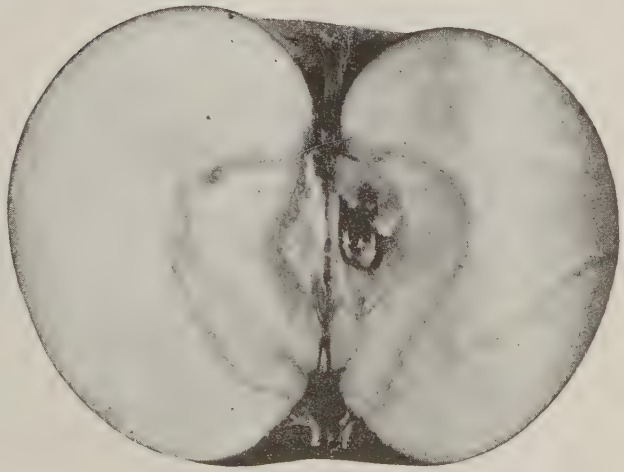
FLESH: yellowish white; texture almost coarse grained, moderately juicy; flavor mild, subacid, pleasant.

QUALITY: dessert, fair; cooking, good.

VALUE: home and foreign markets, good.

SEASON: January to June.

ADAPTATION: long tested in the Niagara district and found to be well adapted to it. As hardy as the Greening, and succeeds in the best apple districts.



SECTION OF ROXBURY RUSSET.

ST. LAWRENCE.

The St. Lawrence apple is not now planted in the commercial orchards of Ontario, bordering on Lakes Ontario, Erie or Huron, being inferior to other autumn varieties of its season, but it is valued in orchards along the St. Lawrence river, and in parts of the province between latitudes 45 and 46. It is rather subject to scab.

ST. LAWRENCE.

ORIGIN: Montreal, Canada.

TREE: hardy, vigorous and productive.

FRUIT: large; form, roundish oblate; color of skin yellowish, with distinct stripes and splashes of carmine; dots obscure; stem five-eighths of an inch long, inserted in a large, deep, regular cavity; calyx closed in a small, deep basin.

FLESH: color white, slightly stained; texture crisp, tender, juicy; flavor vinous, slightly acid.

QUALITY: dessert good; cooking good.

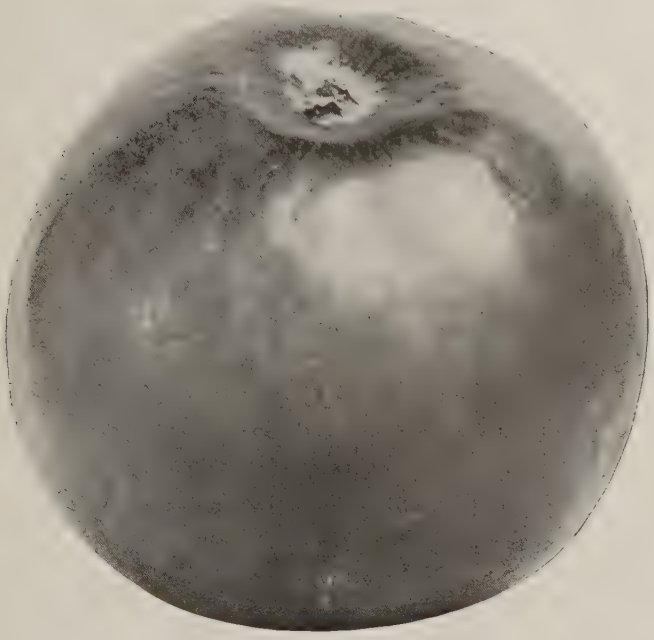
VALUE: home market, first class; foreign market, second class.

SEASON: September and October.

ADAPTATION: hardy generally over the province, except the extreme north.

SECTION OF ST. LAWRENCE.

SCARLET PIPPIN.



SCARLET PIPPIN.

A fancy dessert apple which is esteemed profitable to grow for market along the River St. Lawrence and Ottawa Valley.

ORIGIN: near Brockville in Leeds County. A chance seedling.

TREE: upright in habit; hardy; vigorous and very productive; inclined to overbear.

FRUIT: medium size roundish oblate; skin, waxy white, streaked; splashed or almost entirely covered with bright scarlet covering; stem stout, one-half to three-quarters of an inch long in a narrow, moderately deep cavity; calyx closed in a narrow, very shallow basin.

FLESH: pure white, texture tender, fine, crisp, breaking juicy, with a subacid flavor.

QUALITY: dessert, best; cooking, good.

VALUE: special market, first class.

SEASON: October to February; at its best in October and November.

SECTION OF SCARLET PIPPIN.

SALOME.

A Western apple which promises to be of some value in the Province of Ontario. The hardiness of the tree, the clean bright color of the fruit and its long keeping quality seem to combine in its favor as a commercial variety, especially in the colder sections.

ORIGIN: Ottawa, Illinois; propagated by E. C. Hathaway.

TREE: hardy, productive, a slow grower, an early and an annual bearer.

FRUIT: size medium; form roundish, conical, somewhat angular or lopsided; color bright red with stripes of darker red and numerous small grey dots on a yellowish

ground; when harvested the skin is green, but during the winter it takes on the coloring above described, making it very attractive; stem stout, three-quarters of an inch long, set in a deep, uneven cavity; calyx half closed, segments erect, in a moderately deep, slightly plaited basin, having five distinct prominences; core large, open, sessile.

FLESH: color yellowish; texture tender, firm, becoming toward spring moderately juicy; flavor pleasant, subacid.

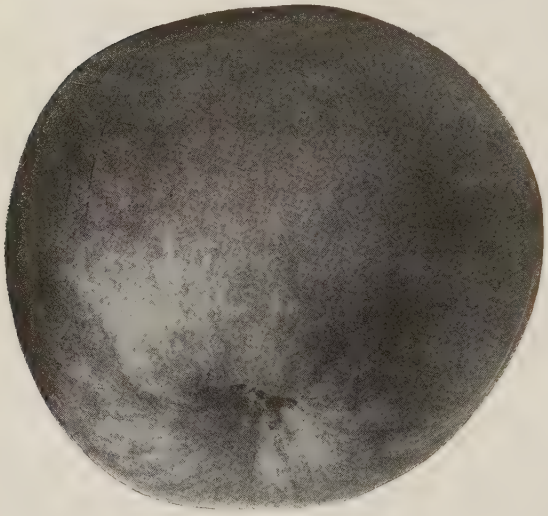
QUALITY: dessert, fair; cooking, good.

VALUE: promising for export.

SEASON: November to March.

ADAPTATION: succeeds remarkably well in the County of Simcoe and at other favored points in the north.

SCOTT WINTER.



SCOTT WINTER.

In the Province of Quebec this is considered the best late winter cooking apple, the tree being very hardy and the fruit a long keeper; useful for the northerly limits of apple culture.

ORIGIN: On the Scott farm Newport Vermont. Introduced by Dr. Hoskins, of Newport.

TREE: vigorous; habit upright; productive, an early bearer.

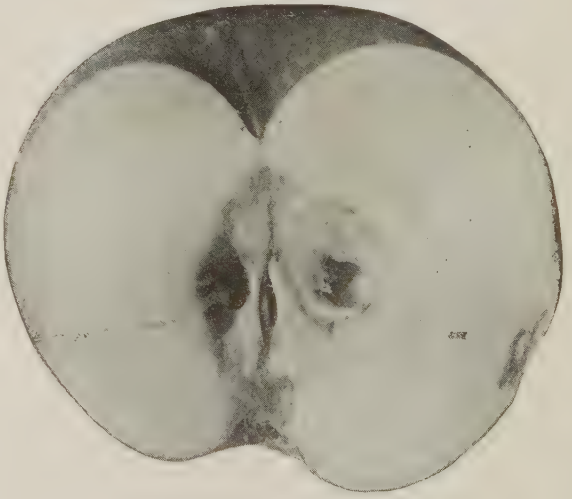
FRUIT: size small to medium; form roundish oblate, slightly conical; skin yellow, washed, striped and splashed with red; stem short set in a regular, deep, russeted cavity; calyx closed in a narrow, abrupt, wavy basin.

FLESH: color yellow; texture fine grained, crisp, juicy; flavor pleasant, sprightly acid.

QUALITY: dessert, fair; cooking, good.

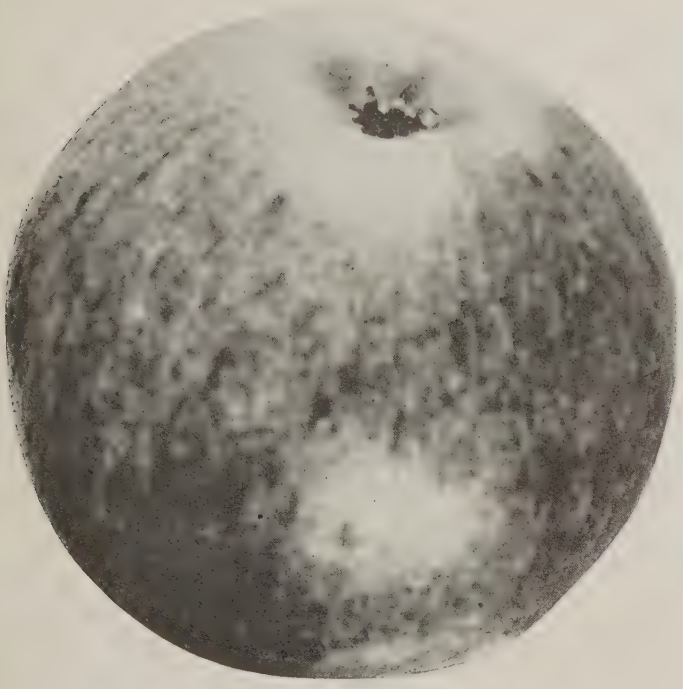
VALUE: fruit rather small for market except under high cultivation.

SEASON: late winter.



SECTION OF SCOTT WINTER.

SEEK-NO-FURTHER.



SEEK-NO-FURTHER.

An old commercial variety, at one time considerably planted in some parts of Ontario, and still highly valued by some apple growers. Not much planted in the newer orchards.

ORIGIN: near Westfield, Connecticut, U.S.A., about 1796.

TREE: vigorous, hardy; habit spreading; productive. Succeeds best on rich sandy loam.

FRUIT: size medium to above; form roundish conical; skin greenish yellow shaded with dull red, striped with bright red, with russet veinings and a few large prominent yellow dots; stem short in a deep, slightly russeted cavity; calyx usually open in a narrow, shallow leather cracked basin; not subject to scab.

FLESH: yellowish white; fine grained, tender; flavor spicy, pleasant, subacid.

QUALITY: dessert, very good; cooking, fair.

VALUE: market, first class.

SEASON: October to February.

SECTION OF SEEK-NO-FURTHER.

SHIAWASSEE (*Shiawassee Beauty*).

SHIAWASSEE BEAUTY.

A fine variety of the Fameuse type; much less subject to scab than Fameuse itself. A fancy variety for dessert purposes.

ORIGIN: in Shiawassee County, Michigan, supposed to be a seedling of Fameuse.

TREE: hardy, vigorous; upright; productive alternate years.

FRUIT: size medium to large; form decidedly oblate; color yellowish ground, almost entirely covered with stripes, splashings and mottlings of dark crimson, and a few large prominent yellowish dots; stem slender, three-quarters of an inch long, set in a broad, deep cavity; calyx usually closed, in a large deep basin.

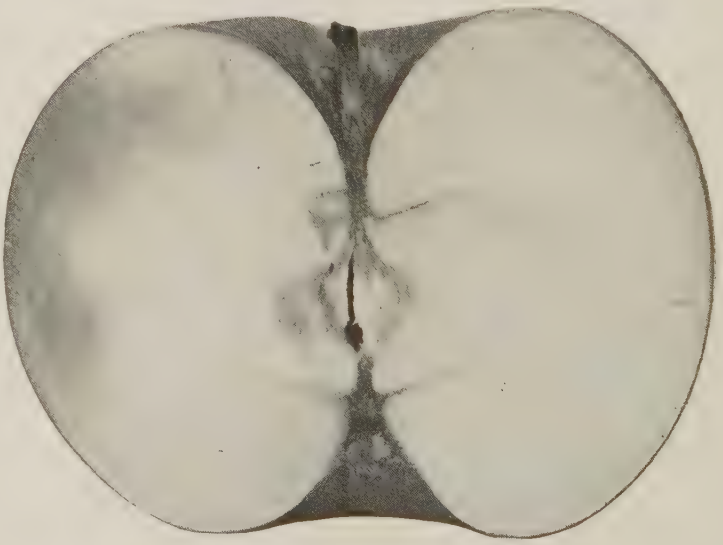
FLESH: color very white; texture firm, very crisp, juicy, fine grained; flavor excellent.

QUALITY: cooking, fair; dessert very good.

VALUE: home or foreign market promising.

SEASON: October to January.

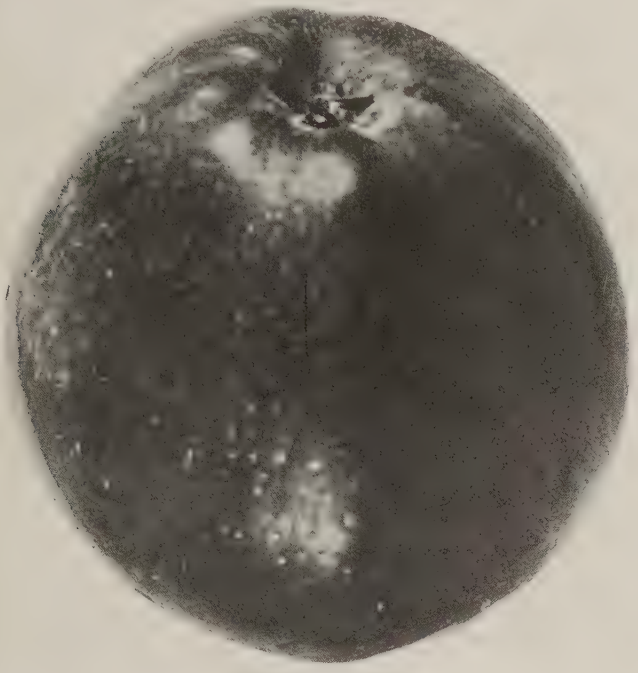
ADAPTATION: Can be grown wherever Fameuse succeeds.



SECTION OF SHIAWASSEE BEAUTY.

SPITZENBURG (*Esopus*).

One of the finest dessert apples for late winter use, and widely planted by early settlers throughout Southern Ontario. It has proved to be unprofitable as a commercial apple in Ontario because the tree is a weak grower, and yields small crops.



SPITZENBURG.

ORIGIN: Esopus, on the Hudson river, previous to 1798.

TREE: lacking in vigor, often showing dead or feeble wood; upright, spreading, with drooping limbs when in bearing; fairly hardy.

FRUIT: size medium to large, oblong, slightly conical; skin straw color in shade, but usually nearly covered with bright red, and dark red in sun, with a few stripes, and many obscure gray dots; stalk seven-eighths of an inch long in a narrow, deep cavity; calyx nearly closed, set in a narrow basin of medium depth, slightly corrugated.

FLESH: yellowish white; texture crisp, juicy, breaking; flavor brisk, rich, delicious.

QUALITY: first class for all purposes.

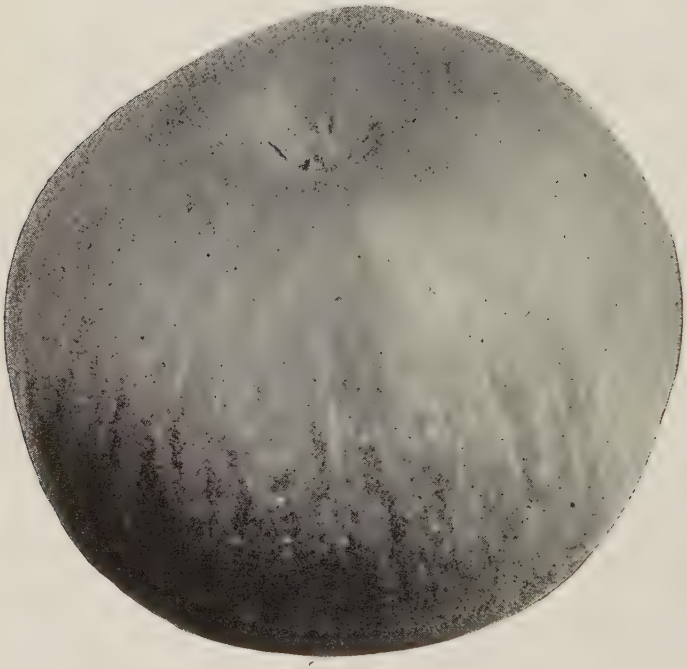
SEASON: November to February.

ADAPTATION: succeeds well on sandy loam in Southern Ontario.

SECTION OF SPITZENBURG.

SPY (*Northern Spy*).

The Spy stands in the very first rank of Canadian apples whether for home or foreign markets. Originating in New York State on the line with the southern portion of the Province of Ontario it succeeds here to perfection. Its beauty of coloring half shaded by its delicate bloom and its great excellence of quality for all purposes, justly claim for it its wide popularity. In Chicago, Canadian Spys are more sought for than any other variety, but owing to tenderness of skin, which shows the slightest bruise, it is less popular for export to Great Britain than some other varieties. The tree is late in coming into bearing, often being fifteen years planted before yielding a crop, and this renders the variety somewhat unpopular with planters. Probably for fancy packages, selected Spys would be among the best.



SPY.

ORIGIN: near Rochester, N.Y., introduced about 1850.

TREE: upright and spreading in habit; fruit spurs on interior boughs; very vigorous, late in coming into bearing, but afterwards productive in alternate years; blossoms late in spring and holds its fruit late in the autumn; requires high cultivation and good fertility.

FRUIT: large to very large; form roundish, slightly conical; skin thin, light green, or pale yellow, sprinkled with light pink, striped and shaded with pinkish red, and covered with thin whitish bloom; stalk slender three-quarters of an inch long, in a wide deep, sometimes russeted cavity; calyx small, closed, in a narrow, moderately deep, abrupt, irregular basin.

FLESH: yellowish white; texture fine grained, crisp, tender, juicy; flavor rich, sprightly, subacid, fragrant.

QUALITY: dessert and cooking, best.

VALUE: home market and export, first class.

SECTION OF SPY.

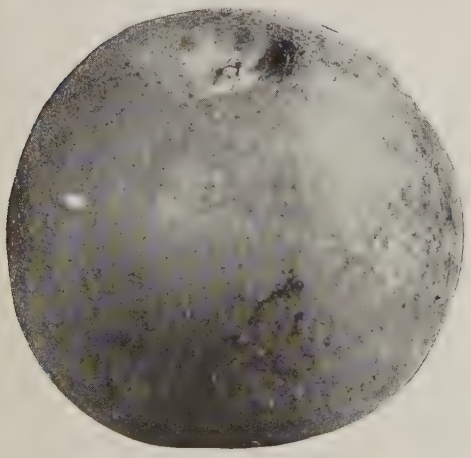
SEASON: January to May.
ADAPTATION: sandy or clay loams in Southern and Middle Ontario; found tender at the St. Lawrence Experiment station, and also at the Lake Simcoe station, except where top grafted to hardy stock.

STUMP.

An attractive looking fall apple.
ORIGIN: United States; probably in Monroe County, N.Y.
TREE: spreading, productive.
FRUIT: size medium; form oblate conical; color yellowish, splashed and blotched with bright red; stem stout, three-eighths of an inch long, in a narrow, moderately deep, funnel-shaped cavity; calyx half open, set in a shallow, narrow, abrupt basin.
FLESH: color white; texture crisp, juicy, firm; flavor subacid.
QUALITY: fair for dessert; good for cooking.
VALUE: home market, first class; foreign market, second class.
SEASON: September and October.

SWAYZIE (*Swazie Pomme Grise*).

There is no choicer winter dessert apple for the months of December and January than the Swazie Pomme Grise, especially when kept in a cool, dark cellar, so that its crisp texture and excellent flavor may be preserved. Unfortunately, it is not very productive, and consequently not profitable. One large tree at Maplehurst, seventy-five years planted, yielded only an average of four barrels each alternate year. It is well worthy of a place in the amateur collection.
ORIGIN: probably with Col. Swayzie, near Niagara.
TREE: upright, fairy vigorous and not very productive.
FRUIT: small, round, oblate, conical; color deep yellow, well colored with cinnamon



SWAYZIE.

SECTION OF SWAYZIE.

russet and many whitish dots; stem three-quarters of an inch long, set in a deep cavity; calyx closed in a moderately deep, slightly corrugated basin.
FLESH: white, texture fine grained, tender, crisp, juicy; flavor aromatic, mild subacid, pleasant.
QUALITY: dessert, first class; cooking, third class.
VALUE: for home market, second class; for foreign market, second class.
SEASON: December to March.
ADAPTATION: succeeds in best apple districts.

STARK.

STARK.

The Stark has been tested in a commercial way in Ontario by many growers in the Bay of Quinte District, and is considered a good winter apple for export, being about as profitable as Ben Davis, and somewhat better in quality; its dull red color is a serious fault.

ORIGIN: Ohio.

TREE: a stout vigorous grower, very productive each alternate year; foliage large, dark green, somewhat subject to fungus.

FRUIT: large form; roundish, slightly one-sided, somewhat oblong conical; skin covered with shades and splashes of light and dark red on a greenish yellow ground, thickly sprinkled with brown dots; stalk one-half inch long, stout, in a small cavity of medium depth; calyx large, half-closed, in a large shallow, plaited basin; flesh yellowish white; texture a little coarse, firm and moderately juicy; flavor mild, subacid, good.

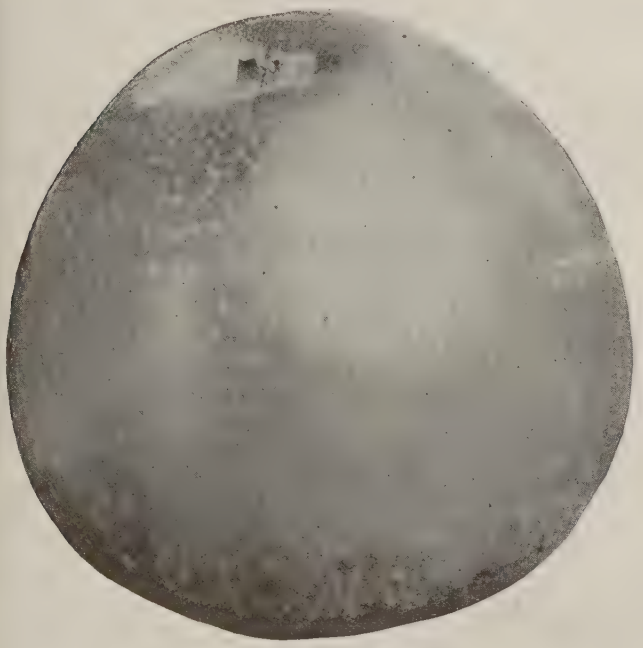
QUALITY: dessert, poor; cooking, good.

VALUE: second class.

SEASON: January to May.

SECTION OF STARK.

SWEET BOUGH (*Large Yellow Bough of Downing*).



SWEET BOUGH.

An excellent dessert apple, ripening about the same season as the Early Harvest; not subject to scab, and a favorite with those who prefer a sweet to a sour apple. Not profitable to grow for market, but it deserves a place in every collection for home use. Baked whole it is delicious eaten with cream.

ORIGIN: United States.

TREE: of medium vigor, never attaining a large size, and, therefore, even with a full crop, not very productive. Bears full every alternate year; head compact.

FRUIT: large, ovate, conical; skin smooth, greenish yellow; stem one inch long, in a narrow, deep, regular cavity; calyx open, in a shallow, irregular basin.

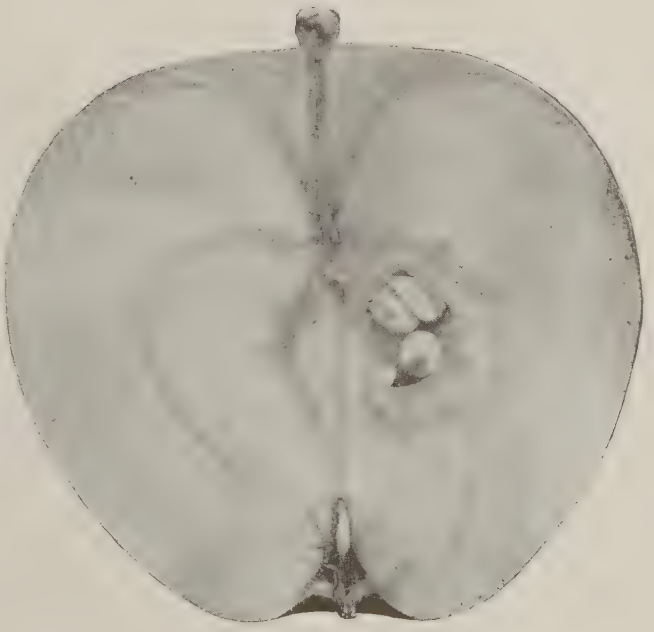
FLESH: white, fine grained, tender and juicy; flavor moderately sweet, rich and agreeable.

QUALITY: dessert very good; cooking good.

VALUE: home market, second class; foreign market, useless.

SEASON: late July and August.

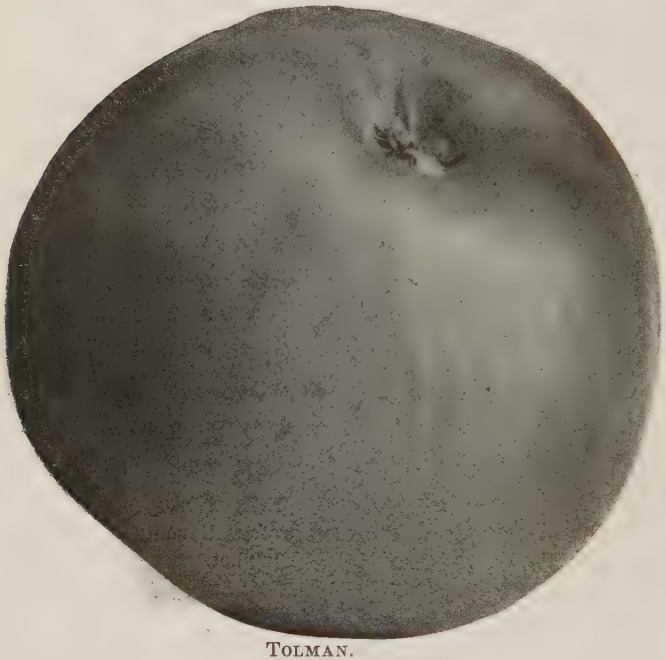
ADAPTATION: succeeds in best apple districts.



SECTION OF SWEET BOUGH.

TOLMAN.

(Tallman Sweet.)



TOLMAN.

The best winter sweet apple; valuable for baking and by some people esteemed a good dessert apple; useful also as stock feed, in place of roots; not of much value for export.

ORIGIN: a native of Rhode Island.

TREE: a vigorous grower, very productive and very hardy; valuable as a stock upon which to top graft other and more tender varieties, as, for example, the King, which is more productive, and the Spy, which may be grown farther north when top grafted upon the Tolman than when upon common stock.

FRUIT: size medium; form roundish; color light yellow, sometimes with reddish cheek, and a line from stem to calyx; stem half an inch long, often inclined, inserted in a wide shallow cavity; calyx closed in a small shallow basin.

FLESH: color white; texture firm, fine grained; flavor sweet, rich.

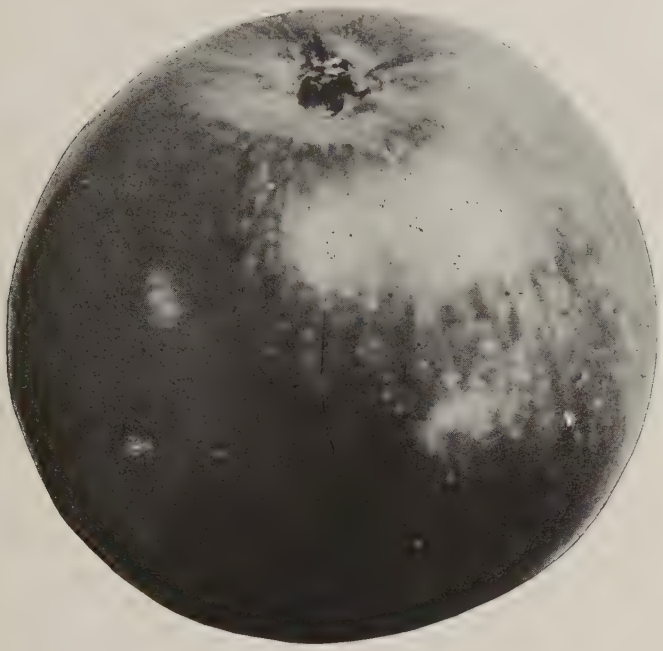
QUALITY: dessert, good; cooking, good.

VALUE: second class, except in special markets and in limited quantities.

SEASON: November to April.

SECTION OF TOLMAN.

TRENTON.



TRENTON.

ORIGIN: seed of Golden Russet by Spy, raised by Mr. P. Dempsey, Albury, Prince Edward County.

TREE: vigorous; spreading.

FRUIT: size medium; color red on yellow ground with numerous splashes and stripes of dark red and many white dots; form round oblate; stem five-eighths of an inch long in a deep cavity; calyx partly open in a deep basin.

FLESH: color yellow; texture tender, crisp, juicy; flavor pleasant, subacid.

QUALITY: dessert, good.

VALUE: second class.

SEASON: September and October.

SECTION OF TRENTON.

TITOVKA (*Titus Apple*).

A variety as yet little known or tested in Canada. In season it follows the Duchess. It is a favorite market apple in middle Russia and is found to endure the severest winters. At Grimsby, grown as a top graft it is inclined to drop its fruit about the middle of August, and almost before fully colored.

ORIGIN: Russia.

TREE: very hardy and productive.

FRUIT: large, oblong to roundish, often flattened at base and apex, somewhat irregular on sides; color yellowish green, almost covered with stripes and shadings of bright red, and light green dots; cavity narrow, deep and irregular; stem about three-quarters of an inch long, stout; basin large, plaited at bottom; calyx nearly closed, segments recurved.

FLESH: white; texture firm, moderately juicy; flavor brisk, tart.

QUALITY: dessert, poor; cooking, good.

VALUE: home market first class.

SEASON: August and September.

ADAPTATION: worthy of trial where Wealthy or Duchess succeed.

TRANSCENDENT.

An excellent early autumn variety of the hybrid crabs.

ORIGIN: United States.

TREE: of moderate slender growth, hardy, somewhat subject to twig blight.

FRUIT: medium for its class; form roundish oblong, flattened at ends, ribbed; color of skin golden yellow, with crimson cheek and thin whitish bloom; stem one and a quarter inches long, set in an open deep cavity; calyx closed, segments large, set in a hollow slightly corrugated basin; somewhat subject to scab.

FLESH: color yellowish; texture crisp and moderately firm; flavor acid, slightly astringent, becoming pleasant when fully ripe.

VALUE: good.

SEASON: August and September.

TRANSCENDENT.

WAGENER.

A fine dessert apple when grown and highly colored, but samples grown in the shade are inferior both in appearance and in flavor. The texture of the fruit is too tender to be planted in the commercial orchard.

WAGENER.

ORIGIN: Abram Wagener, Penn Yan, N.Y., in 1796.

TREE: a slow grower and an early bearer; not long-lived. An excellent variety to be used as a filler.

FRUIT: medium to large, form oblate; color yellow, nearly covered with crimson, obscurely striped, with a few light dots; stem about seven-eighths of an inch long, inserted in a broad, deep, irregular cavity; calyx closed, set in a funnel form, somewhat corrugated basin.

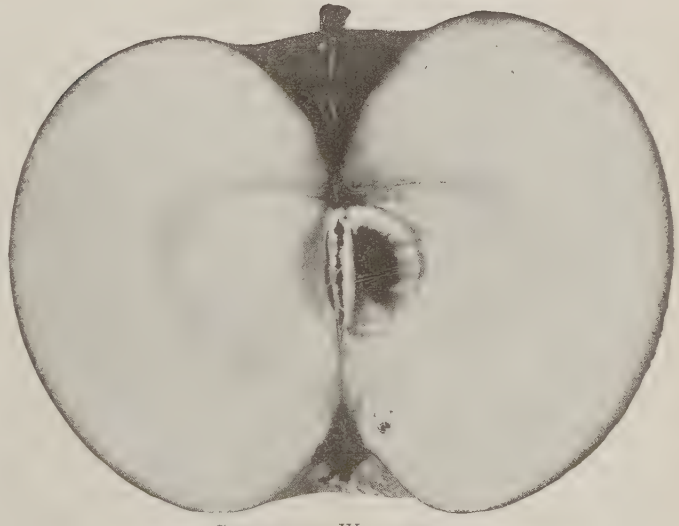
FLESH: yellowish, texture fine grained, very tender, juicy; flavor subacid, very agreeable.

QUALITY: dessert, very good; cooking, good.

VALUE: home market, first class; foreign market, second class.

SEASON: November to February.

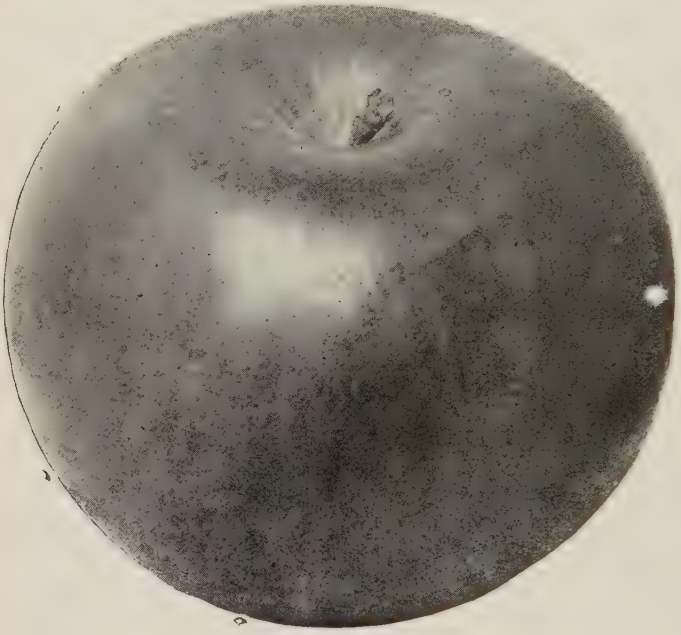
ADAPTATION: succeeds in best apple sections.



SECTION OF WAGENER.

WEALTHY.

This beautiful apple was distributed among the members of the Ontario Fruit Growers' Association in 1882 for trial, and has won for itself a good reputation in every part of the Province as a dessert apple of excellent quality, while in the northern portions it is especially desirable on account of its hardiness.



WEALTHY.

ORIGIN: St. Paul, Minnesota, by Peter Gideon.

TREE: vigorous, very hardy, over productive.

FRUIT: medium, roundish, oblate, regular; skin, smooth, greenish ground, changing to pale yellow, rich, red cheek, with stripes and splashes of red in the sun, sometimes nearly covered with crimson; stem one-half to three-quarters of an inch long in a deep, regular cavity; calyx nearly closed in a deep, abrupt basin.

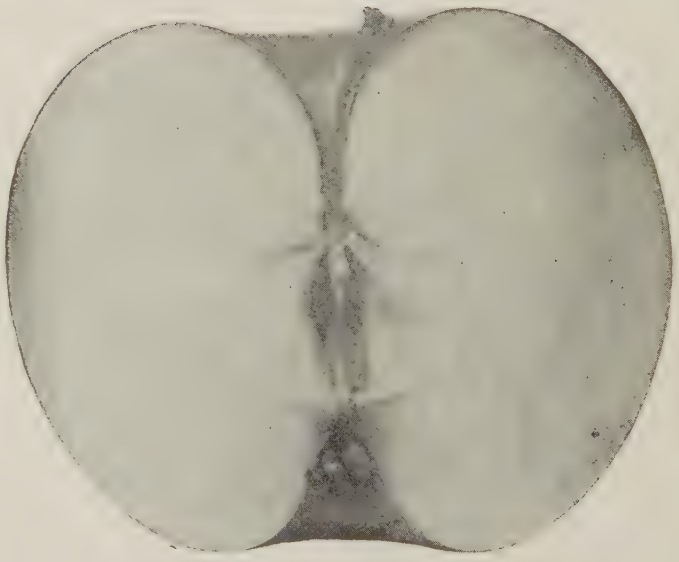
FLESH: white, texture fine grained, tender, juicy, sprightly, pleasant, subacid.

QUALITY: dessert good; cooking, good.

VALUE: for home market, first class; for foreign market, first class.

SEASON: September to November.

ADAPTATION: succeeds throughout the Province generally.



SECTION OF WEALTHY.

VANDEVERE.

An old variety originated at Wilmington, Delaware.

FRUIT: medium oblate; surface waxen yellow, striped with red; dots numerous, green; cavity deep; stem about one inch long; basin round, moderate; calyx small, closed.

FLESH: yellowish, compact, but tender, with a fine rich subacid flavor; good; valuable for culinary use. October to January. (*Budd.*)

WALBRIDGE (*Edgar Redstreak*).

A good winter variety for northern sections, on account of the hardiness of the tree, but not commended for the apple orchards of the more favored districts.

ORIGIN: Edgar Co., Illinois, and first known as Edgar Redstreak.

TREE: vigorous; habit spreading; a tardy and often a shy bearer.

FRUIT: size small; form round conic; skin pale yellow, shaded with pale red and having stripes and splashes of bright red on the sunny side, and a few obscure whitish dots; stem short in an acute regular cavity; calyx closed in a narrow flat basin.

FLESH: color white; texture tender, juicy; flavor mild subacid.

QUALITY: dessert, fair; cooking, good, but rather small.

VALUE: market, second class.

SEASON: December to March.

WOLF RIVER.

The Wolf River is an apple that might be included in a list for export. It is a little later in season than Alexander, and is supplanting that variety in some sections.

ORIGIN: a seedling of the Alexander, and originated in Wisconsin on the bank of Wolf River.

TREE: very hardy, vigorous and fairly productive; an early bearer.

FRUIT: very large, oblate, or roundish oblate, usually regular in size; skin light yellow, shaded with dark red or crimson in sun, with a few yellowish dots; stem three-quarters of an inch long, set in a narrow deep basin, of a green or russet color; calyx open, in a narrow, deep, green, wrinkled basin.

FLESH: yellowish white, moderately firm in texture, not fine grained, juicy, with a pleasant subacid flavor.

SEASON: October and November.

ADAPTATION: general throughout the Province, but specially successful in the north.

Wolf River.

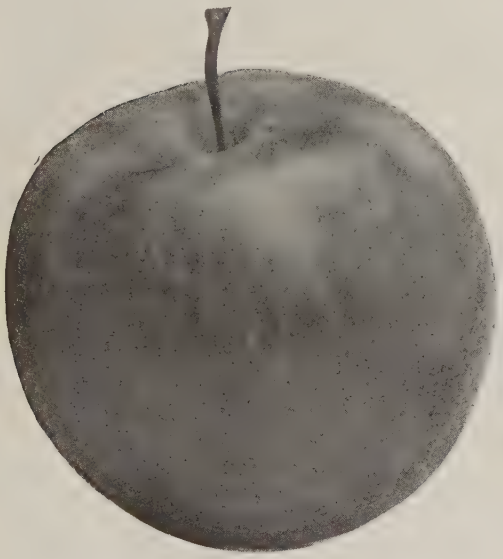
Section of Wolf River.

WHITNEY (*Whitney No. 20*).

A hybrid crab, which originated in Illinois and has proved itself valuable in Northern Illinois, in Minnesota, and in some parts of our Canadian Northwest. As long ago as 1894, this apple was in bearing at Prince Albert in Alberta.

The apple is large for its class; it is a good cooking apple and a fair dessert apple.

TREE: productive; very hardy.



WHITNEY.

SECTION OF WHITNEY.

FRUIT: medium size; form roundish conical, slightly angular; color dark red, splashed with dark crimson on a yellow ground, with obscure small white dots; stem one inch long set in a flat wrinkled basin; calyx closed in a regular slightly russeted basin.

FLESH: color yellowish; texture tender, juicy; flavor subacid.

QUALITY: cooking, very good; dessert, good.

VALUE: special market, first class.

SEASON: August to September.

YORK IMPERIAL.

A fine export market apple, highly valued in some of the American States, but not yet much grown in Ontario.

ORIGIN: York County, Pa.

TREE: a moderate grower, productive.

FRUIT: medium in size: angular, oblique; color of skin, bright red in shades, stripes and splashes on a yellowish ground; stem half an inch long in a deep funnel-shaped cavity; calyx nearly closed in an irregular deep, slightly plaited basin.

FLESH: yellowish; texture firm and juicy; flavor subacid, good.

QUALITY: dessert, fair; cooking, good.

VALUE: first class for market.

SEASON: January to March.

YELLOW BELLFLOWER (*Bishop's Pippin of Nova Scotia*).

YELLOW BELLFLOWER.

At one time the Bellflower was planted to some extent in Ontario orchards but the tree has proved itself irregular in its bearing habits, sometimes producing magnificent samples, and at other times small and poorly colored fruit, and the fruit is tender and shows very slight bruises, so that we cannot recommend it as worthy of a place among the most profitable varieties.

ORIGIN: Burlington, N.J.

TREE: vigorous, forming a roundish, spreading and somewhat drooping head; productive alternate years.

FRUIT: size large, form apparently oblong, because tapering towards calyx, somewhat angular and ribbed; color pale yellow, often with a beautiful blush on the sunny side and numerous obscure whitish dots; stem slender, one inch long, in a narrow deep cavity; calyx closed in a small corrugated basin.

FLESH: color yellow; texture tender, juicy and crisp; flavor sprightly subacid agreeable when eaten in season.

QUALITY: dessert, good; cooking, good.

VALUE: home market, first class.

SEASON: December to February.

ADAPTATION: general, except in extreme northern sections.

SECTION OF YELLOW BELLFLOWER.

YELLOW TRANSPARENT.

YELLOW TRANSPARENT.

This variety seems to be proof against fusicladium, both in leaf and fruit.

ORIGIN: St. Petersburg, Russia. Imported by the U. S. Department of Agriculture in 1870.

TREE: hardy, vigorous, upright, an early and an annual bearer, productive.

FRUIT: medium, roundish, oblate, inclined to be conical; skin clear white, yellowish white when very mature; dots light green, obscure; stalk medium, in large cavity; calyx closed in medium, slightly corrugated basin; fruit hangs well on the tree.

FLESH: white; texture firm till very ripe, then tender.

QUALITY: second class.

VALUE: good early apple for local market.

SEASON: early August.

ADAPTATION: succeeds almost everywhere over the Province.

SECTION OF YELLOW TRANSPARENT.

THE CHERRY.

The cherry, which for a time was a comparatively neglected fruit in Ontario, is now being largely planted and better culture is being given it. As a result, this delicious fruit is now being produced in fairly large quantities in certain sections, and as the crop is more uncertain than that of any other large fruits, the prices obtained for cherries are good.

There are three well recognized groups into which the cultivated cherries are divided, the Morello, or Sour cherries; the Bigarreau, Heart, or Sweet cherries, and the Duke cherries, which are intermediate between the other two groups, the fruit being usually subacid. The hardiest varieties are found in the Morello group, and for this reason these Sour cherries have succeeded over a much larger part of Ontario than the others. The eastern limit of the commercial culture of the Sour cherries is about the city of Kingston, but northeast of that district along the St. Lawrence River, especially within twenty or thirty miles of the water, they succeed admirably. They are not grown to any extent north of latitude 45 degrees, as it has been found that the dry cold winters kill the fruit buds, and it is only rarely that a crop is produced. Near the northern limit of the successful culture of Sour cherries, it has been found that large bodies of water have a beneficial influence in lessening the winter injury.

The Sweet and Duke cherries have a much narrower range than the Sour cherries. While they will succeed along Lake Ontario east of Toronto, where the influence of the water moderates the climate, the crops are too uncertain for their commercial culture, hence this is confined mainly to the south-western parts of the Province.

More care is required in choosing a site for cherries than for apples. A warm sandy loam or gravelly well-drained soil is to be preferred, and while the tree may succeed for a time on poorly drained soil, they will not reach a great age, and are not likely to prove profitable. A site should, if possible, be chosen where there is the least danger from spring and summer frosts, as cherry blossoms are tender.

The preparation of the land for apple trees and directions for planting of the same may be followed for the cherry, but even more care should be taken in planting, as cherries are much harder to transplant than apples. For this reason, one or two year old trees should be used, as the loss from planting older trees is liable to be great.

As the trees of the Morello cherries do not reach a great size, they may be planted closer than the others; from eighteen to twenty feet apart being sufficient; while for the Sweet cherries, twenty-five feet is not too much. The Duke cherries, which do not grow quite so large as the Sweet, may be planted about twenty feet apart.

The pruning to shape the cherry tree is much the same as for the apple, but after the tree becomes well shaped, the less pruning done the better. Often serious injury occurs when cherry trees are severely pruned. Gum oozing from the tree is an indication of such injury.

Thorough cultivation is as necessary for cherries as for apples, and cover crops are, if anything, more necessary.

VARIETIES RECOMMENDED.

General List Approved by the Board of Control.

Hardy varieties suitable for any portion of the Province bounded by Lakes Ontario, Erie, Huron and the Georgian Bay: Orel, Richmond, Montmorency, Russian 207. For southern sections, see district lists.

DISTRICT LISTS.

NIAGARA DISTRICT.

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment.)

E. D. SMITH, WINONA.

Sour: Richmond, Montmorency, English Morello.
Sweet: White—Gov. Wood, Napoleon. Black—Knight, Tartarian, Mezel, Windsor, Schmidt Bigarreau (for clay only).

F. G. STEWART, HOMER.

Sour: Richmond, Montmorency. (The English Morello, Ostheim and Wragg ripen late here, and are apt to be stung before they are harvested.)
Sweet: White—Gov. Wood, Elton, Napoleon, Spanish. Black—Tartarian, Elkhorn, Windsor.

FONTHILL DISTRICT.

(Including Townships of Pelham, Stamford and Thorold.)

G. C. BROWN, FONTHILL.

Sour: Richmond, Montmorency.
Sweet: Tartarian, Knight, Napoleon, Gov. Wood, Windsor.

BURLINGTON-OAKVILLE DISTRICT.

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto.

A. W. PEART, BURLINGTON.

Dyehouse, Richmond, Windsor, Montmorency, English Morello.

LAKE SIMCOE DISTRICT.

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe.)

G. C. CASTON, CRAIGHURST.

Orel 25, Ostheim, Montmorency, Dyehouse, English Morello.

OTTAWA DISTRICT.

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.)

W. T. MACOUN, HORTICULTURIST, CENTRAL EXPERIMENTAL FARM, OTTAWA.

Orel 25, Vladimir, Minnesota, Ostheim, Cerise d'Ostheim.

ALGOMA DISTRICT.

(Including the islands of Manitoulin and St. Joseph, and a limited portion of the northern and eastern shore of the Georgian Bay.)

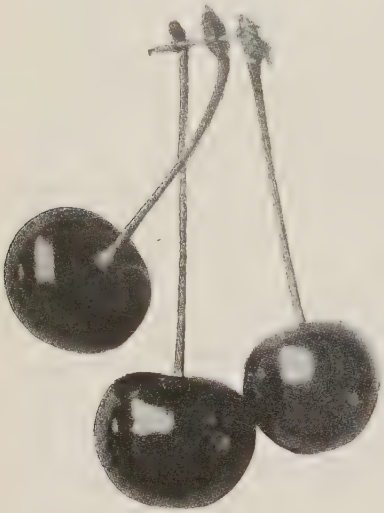
CHAS. YOUNG, RICHARD'S LANDING.

If near the influence of the water, Richmond, Montmorency, English Morello, Orel 25 and Ostheim.

DESCRIPTION OF VARIETIES.

CHOISY. (*Belle de Choisy, Ambree grosse of LeRoy.*)

The most delicious of all dessert cherries, and one that should be planted in every amateur's garden; but of no value in the commercial cherry orchard, because not productive, and the tree is often short lived.



CHOISY.

ORIGIN: Choisy, near Paris, 1760.

TREE: Upright; foliage dark; hardy; not very productive; group, Duke.

FRUIT: Medium to large, ¾ × ¾, obtuse heart-shaped; skin transparent, showing the structure of the flesh and the cells of juice within; color bright cornelian red in sun, pale red to amber in shade; stem slender, two inches long; suture marked by a delicate line.

FLESH: Very pale red; texture soft, juicy; flavor sweet, very delicious.

QUALITY: Dessert very good.

VALUE: Market second class.

SEASON: Late June.

ADAPTATION: Southern Ontario

CLEVELAND.

One of the finest Bigarreau cherries for dessert purposes, being of high quality and not too firm in texture. A good variety for commercial orchards, because of its high color and earliness of season, but not yet fully tested in this Province.

ORIGIN: By Prof. Kirtland, Cleveland, Ohio.

TREE: Vigorous; of stout spreading habit; productive, fruited after three years planting at Maplehurst; group, Heart.

FRUIT: Large, ⅞ × 15-16 of an inch; form heart-shaped, sides unequal; color bright red maroon, on yellowish ground, dark rich red in the sun; stem stout, 1½ inches long in a broad, uneven cavity; suture broad, half way round.

FLESH: Light cream in color; texture almost tender, juicy; flavor sweet, rich and delicious.

QUALITY: First-class for table.

VALUE: Home market good; distant market good.

SEASON: Late June.

CLEVELAND.

COE. (*Coe's Transparent.*)

A good variety for the home garden, but altogether too tender to be popular for the commercial orchard.

COE.

ORIGIN: In Connecticut, with Curtis Coe, of Middleton.

TREE: Healthy, fairly vigorous, with round spreading head, third rate in productiveness; group, Heart.

FRUIT: Medium to large; round and regular in form; skin thin, bright shiny amber, nearly covered with rich cornelian, marked with peculiar mottled blotches; stalk one and a half to two inches long, set in a medium wide cavity; suture obscure.

FLESH: Very pale yellowish tint; texture very soft and tender, juicy; flavor very good, if not left hanging too long.

QUALITY: Good for dessert.

VALUE: Second class for home market; fourth class for distant market.

SEASON: Early July.

ADAPTATION: South of Lake Ontario.

DYEHOUSE.

An early Morello cherry, ripening just in advance of Early Richmond, to which it is quite similar.

ORIGIN: Central Kentucky; an accidental seedling in the orchard of Mr. Dyehouse.

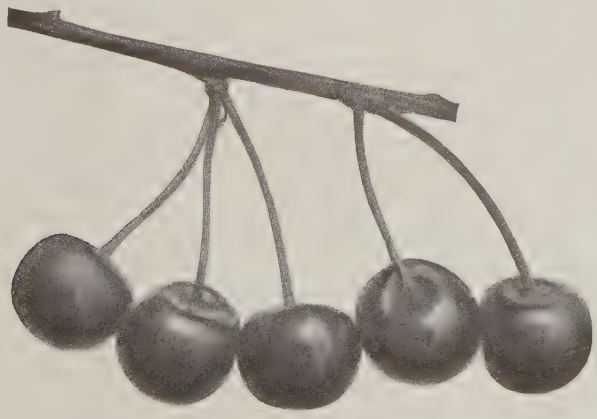
TREE: An early and abundant bearer; habit round, spreading head, slender; fairly vigorous; not as hardy as Richmond; class, Kentish.

FRUIT: Medium size, 9-16 × 11-16 of an inch; roundish oblate; apex depressed; stem, half an inch long, rather stout, set in a large cavity; color, light red.

FLESH: Pale yellow; fairly firm; flavor acid.

QUALITY: Dessert, poor; cooking, first class.

SEASON: Early July.



DYEHOUSE.

DOWNER. (*Downer's Late.*)

A delicious dessert cherry.

ORIGIN: Massachusetts.

TREE: A vigorous, upright grower; fairly productive; group, Heart.

FRUIT: Size, large, $\frac{5}{8} \times \frac{3}{4}$; form, heart-shaped; stem, $1\frac{1}{4}$ to $1\frac{1}{2}$ inches long; apex a slight depression; color, bright shiny red, marbled.

FLESH: Creamy white; texture tender, melting; flavor rich and sweet.

QUALITY: Very good for dessert; fair for cooking.

VALUE: Market, second class.

SEASON: Mid July.

EAGLE. (*Black Eagle.*)

A very excellent dessert cherry, well deserving a place in the home garden, but not sufficiently productive to be recommended for the commercial orchard. The average annual yield of large trees at Maplehurst is from twenty-five to thirty quarts. The fruit is usually in scattered clusters, and often borne singly, making the gathering expensive. In England, this variety is more productive than in Canada.

ORIGIN: England, 1810, by Miss E. Knight, of Downton Castle, from Biggareau and May Duke.

TREE: Second rate in vigor, of a round spreading habit; third rate in productiveness; group, Bigarreau.

FRUIT: Medium to large, averaging about 13-16 long by 15-16 of an inch wide; form, obtuse heart-shaped, almost roundish oblate; skin dark red, becoming almost black; stalk slender, $1\frac{1}{2}$ to $1\frac{3}{4}$ inches long in a medium cavity; stone, small.

FLESH: Dark purple; texture tender and juicy; flavor very sweet, rich and delicious.

QUALITY: Very good for dessert.

VALUE: First class for near markets; second rate for distant markets, because it soon decays.

SEASON: Mid July.

BLACK EAGLE (Reduced).

EARLY PURPLE. (*Early Purple Guigne.*)

The earliest cherry is the Early Purple, a foreign variety known in France as the Early Purple Guigne. The tree is a vigorous, upright grower, and becomes quite productive as it acquires age. Frequently the birds destroy the fruit before it matures, and if gathered as soon as colored red, it is little more than "skin and bones." The last few days of growth, the fruit fills out wonderfully, and then becomes almost a so-called "black cherry." Not usually profitable.

TREE: Upright, vigorous, healthy; productive when full grown.

FRUIT: Medium size; roundish heart-shaped; skin, dark red to purple; stem, two inches long in a shallow cavity; suture obscure.

FLESH: Red to purple; texture, tender, juicy; flavor, sweet and pleasant.

QUALITY: Dessert, good.

VALUE: Market, second class.

SEASON: Mid June.

ADAPTATION: Grown at Maplehurst for thirty years and quite hardy; recommended for trial north of Lake Ontario.

ELKHORN.

ELKHORN.

ORIGIN: Unknown.

TREE: Upright, long-jointed; growth, vigorous.

FRUIT: Heart-shaped, very large, black, solid, firm, productive; very good for dessert and market.

SEASON: Late July, before Windsor.

ELTON.

An excellent dessert cherry for the garden, but too soft and too much inclined to rot, to be worthy of a place in the commercial orchard.

ORIGIN: England.

TREE: A vigorous grower; upright in habit; quite productive.

FRUIT: Medium to large; color, pale yellow, with red blush; stem, two inches long, set in a deep cavity.

FLESH: Light yellow; texture delicate, tender, moderately juicy; flavor, sweet, vinous, delicious.

QUALITY: Dessert, good; cooking, fair.

VALUE: Fair, but like most white cherries, not popular in the market, because inclined to show the slightest bruises.

SEASON: Early July.

ELTON.

GRENNER GLAS.

TREE: Upright; fruit in clusters; vigorous; moderately productive.

FRUIT: Large in size, $\frac{5}{8} \times \frac{7}{8}$; form, oblate, one-sided; color, bright red; cavity, broad, shallow; stem, $1\frac{1}{4}$ inches in length; apex is a small depression; suture, traceable on one side.

FLESH: Color, yellowish, with colorless juice; texture, tender; very juicy; flavor, tart.

QUALITY: Dessert, poor; cooking, very good.

VALUE: Market, first class.

SEASON: Mid July.

HORTENSE. (*Reine Hortense.*)

One of the finest flavored of cooking cherries, and one which deserves the first place in the home garden. It is not as productive as the May Duke, but from its habit of fruiting singly is less subject to rot than that excellent variety.

ORIGIN: France, in 1832, by M. Larose, Neuilly; first fruited in 1838.

TREE: Of somewhat spreading habit, a vigorous and handsome grower and fairly productive; group, Duke.

FRUIT: Very large; roundish elongated; side slightly compressed; skin, thin, light shining red mottled with darker red, becoming richer in color the longer it hangs; stalk, slender, about two inches long.

FLESH: Creamy yellow; texture netted, very tender, juicy; flavor, slightly subacid, excellent.

QUALITY: Very good for cooking; very good for dessert.

VALUE: First to second class for market.

SEASON: Mid July.

HORTENSE.

KNIGHT. (*Knight's Early Black.*)

A delicious early, black cherry, ripening about a week in advance of Black Tartarian. It is a regular and even bearer. The fruit is borne singly, or, occasionally, in pairs, and, therefore, is not gathered as rapidly as those varieties which grow in clusters. It is one of the most valuable dessert cherries, but not so productive as the Tartarian.

ORIGIN: England, by T. A. Knight, in 1810, from Bigarreau, crossed with May Duke.

TREE: Healthy, fairly vigorous, with spreading head; second rate in productiveness; group, Heart.

FRUIT: Medium to large; form, obtuse, heart-shaped, uneven; skin, dark red or purple, becoming almost black, if allowed to hang; stalk, two inches long in a rather large cavity.

FLESH: Dark red to purple; texture, tender and juicy, but firmer than Tartarian; flavor, sweet, rich and delicious; stone, small.

QUALITY: Very good for all purposes.

VALUE: For market, first class.

SEASON: Late June.

KNIGHT.

KOSLOV. (*Koslov Morello.*)

A valuable dwarf growing cherry of the Morello class, which is extremely hardy, and promises to be of the greatest value in the cold sections of Ontario.

ORIGIN: Fifty trees of this variety were imported from Jaroslav Niemetz, of Winnitza Podolie, Russia, in 1889, by Mr. Linus Woolverton, then Secretary of the Ontario Fruit Growers' Association, and by him distributed among the directors, and a few sent to Dr. Wm. Saunders, of the Central Experimental Farm, Ottawa.

TREE: Habit, bush form, very slow of growth, might be planted six feet apart in a field and cultivated two ways; very hardy, Niemetz says it has endured a temperature of 46 degrees below zero in Russia; very productive.

FRUIT: Fairly large; form, roundish; color, dark red, turning black at maturity; stalk, one and a half inches long, set in a slight depression; suture, traceable.

FLESH: Red, turning dark red at maturity; texture, tender, juicy; flavor, mild acid.

QUALITY: Cooking, good.

VALUE: Almost first class.

SEASON: Early August.

LATE DUKE. (*Anglaise Tardive.*)

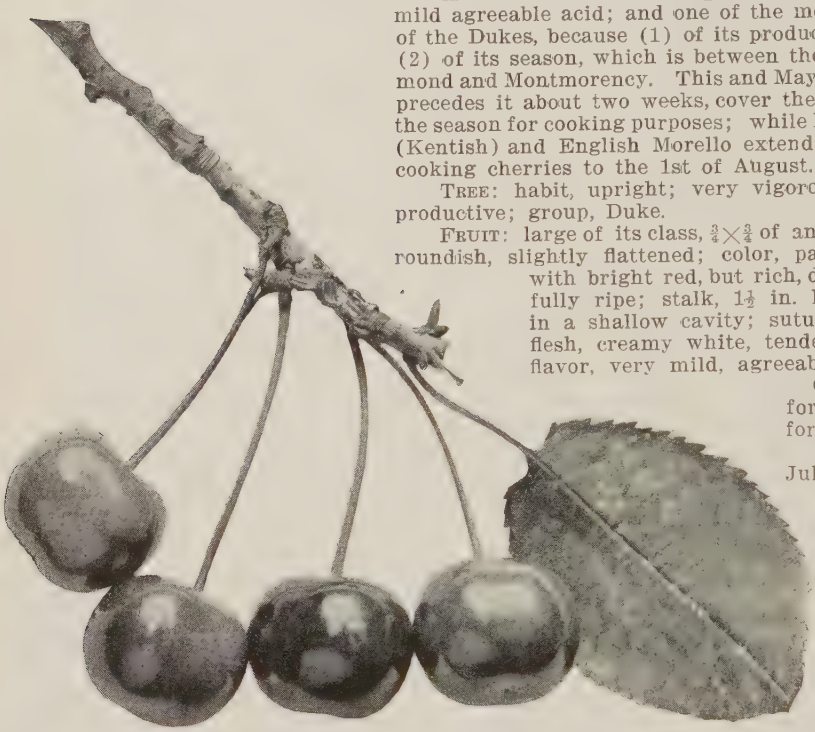
A most desirable cooking cherry, because of its mild agreeable acid; and one of the most profitable of the Dukes, because (1) of its productiveness, and (2) of its season, which is between the Early Richmond and Montmorency. This and May Duke, which precedes it about two weeks, cover the early part of the season for cooking purposes; while Montmorency (Kentish) and English Morello extend the season of cooking cherries to the 1st of August.

TREE: habit, upright; very vigorous and very productive; group, Duke.

FRUIT: large of its class, $\frac{3}{4} \times \frac{3}{4}$ of an inch; form, roundish, slightly flattened; color, partly covered with bright red, but rich, dark red when fully ripe; stalk, $1\frac{1}{2}$ in. long, inserted in a shallow cavity; suture, traceable; flesh, creamy white, tender and juicy; flavor, very mild, agreeable acid.

QUALITY: good for dessert; best for cooking.

SEASON: mid July.



LATE DUKE.

MAGNIFIQUE. (*Belle Magnifique.*)

Chiefly valuable for its lateness of ripening.

ORIGIN: France.

TREE: upright, round habit; vigor moderate; not very productive; Duke.

FRUIT: about $\frac{3}{4}$ of an inch long by $\frac{7}{8}$ broad; form, heart shape, flattened, obtuse; color, bright red; stem, about two inches long, set in a large, broad cavity; suture, traceable.

FLESH: color, light yellow; juice, uncolored; texture, slender, juicy; flavor, subacid.

QUALITY: dessert, poor; cooking, good.

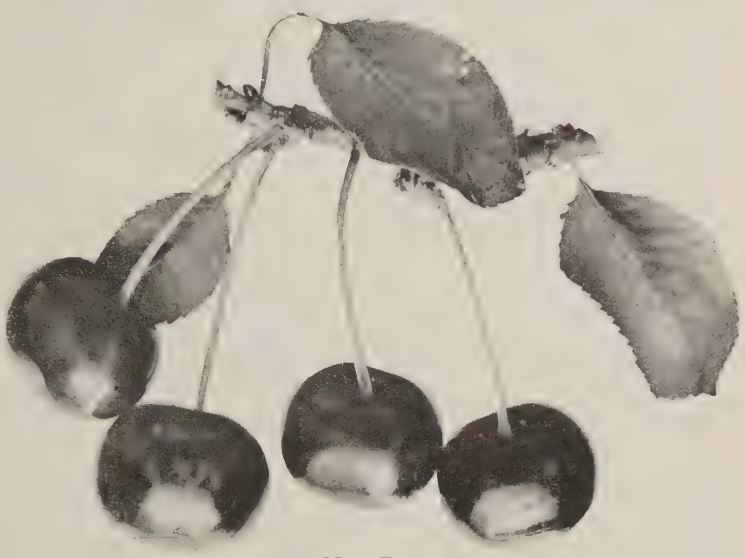
VALUE: market, second class.

SEASON: late July.

MAGNIFIQUE.

MAY DUKE. (*Early Duke, Royal Hative.*)

A fine cooking cherry. The great productiveness, health and vigor of the tree, the mild acid of the fruit ripening over a considerable season, all tend to make this a favorite variety. The fruit is rather tender for distant shipments, and inclined to rot in wet seasons. These Duke cherries have green and ripe fruit at the same time, which makes them undesirable for commercial orcharding, as it necessitates several pickings instead of one, increasing the cost of harvest beyond the margin of profit.



MAY DUKE.

ORIGIN: Medoc, a Province in France, from whence the name is said to be a corruption.

TREE: upright, a habit especially noticeable in young trees; vigorous, hardy and productive; group, Duke.

FRUIT: size, small to medium; form, roundish, obtuse, heart-shaped, with traceable suture and distinct indentation to apex; grows in clusters; skin, bright red, turning darker at full maturity; stalk, 1½ to 2 inches long; stone, small.

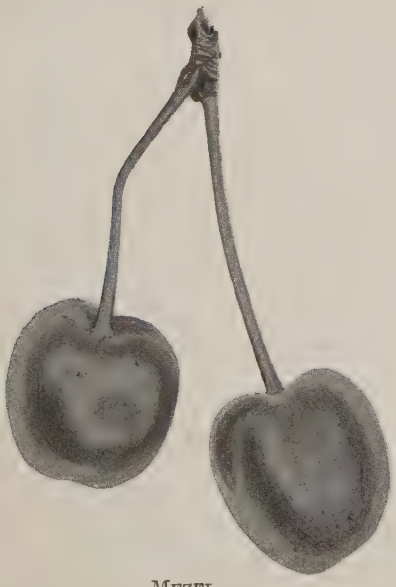
FLESH: red; texture, tender, very juicy; flavor, subacid, and very good.

QUALITY: good for dessert, first class for cooking.

SEASON: late June.

MEZEL. (*Monstreuse de Mezel, Bigarreau of Mezel.*)

One of the finest of the late black cherries, of large size and great productiveness. Though a Bigarreau, it has not the fault of its class of being especially subject to rot: it is not so black in color as the Elkhorn, but dark enough a red to be classed with the black cherries.



MEZEL.

ORIGIN: Mezel, France; first introduced in 1846.

TREE: upright, spreading, a very vigorous grower; one tree at Maplehurst, forty years planted, was thirty feet in height in 1897, and covered an area about the same number of feet in diameter; first rate in hardiness and in productiveness; group, Bigarreau.

FRUIT: very large, fifteen-sixteenths of an inch long by one inch in width; form, obtuse, heart shaped, slightly flattened, with a clearly-defined suture on one side, ending in a slight nipple; skin, dark red at first, changing to dark purple at maturity; stalk, two inches long, slender, set in good-sized cavity.

FLESH: firm, juicy, breaking; flavor, sweet, good.

QUALITY: for dessert, very good.

VALUE: for market, first class.

SEASON: mid July.

MORELLO. (*English Morello.*)

An old reliable variety for cooking purposes, known in England for nearly three hundred years, and deserving of wider cultivation in Ontario. Downing thinks the name Morello is from *Morus*, the Mulberry, from the dark purple color of its juice, which resembles that of the mulberry; a profitable market variety.

TREE: habit, spreading, slender, hardy and very productive; vigor, medium; group, Morello.

FRUIT: fairly large, roundish, nearly heart shaped, somewhat flattened on one side, with a slightly traceable suture.

SKIN: red, turning dark red or purple towards maturity; stalk, about 1¾ inches long, inserted in a shallow cavity; stone, small, slightly cling.

FLESH: very dark red; texture, tender, juicy; flavor, acid, becoming more sub-acid and agreeable the more it matures.

QUALITY: dessert, very poor, cooking, first-class.

VALUE: home market, first class.

SEASON: early August.

MORELLO.

NAPOLEON. (*Napoleon Bigarreau, Royal Anne of California.*)

A valuable variety of foreign origin. Perhaps the most productive variety known, yielding fruit of the very largest size which is in good demand, and, therefore, one of the most desirable for the commercial orchard. It has one serious fault, namely, it is very subject to the rot, especially in wet seasons, and sometimes the whole crop of this variety is ruined by it.

TREE: upright, spreading, vigorous, hardy on the south shore of Lake Ontario; very productive.

FRUIT: very large, oblong heart shaped; skin, yellow ground, light in shade, rich red cheek in the sun, sometimes mottled; stem, 1¼ inches long; suture plainly traceable.

FLESH: yellowish white, very firm, meaty, fairly juicy; flavor, good; texture much esteemed for canning because it looks well in the jars and bears cooking well.

QUALITY: dessert, medium.

VALUE: market first class.

SEASON: early July.

NAPOLEON.

MONTMORENCY.

Of all the Morello cherries, this seems to us the most profitable. The tree is one of the most vigorous in its class, the fruit being large and abundant. This and the Early Richmond cover the season very well, and are the two leading Kentish varieties for market. In France, this cherry has many synonyms, as, for example, Montmorency, a longue queue, Petit-Gobet, etc.

ORIGIN: Montmorency valley, in France, in middle of 17th century.

TREE: hardy, healthy, fairly vigorous, very productive and an early bearer.

FRUIT: attached in ones and twos; size, $\frac{3}{4}$ long by $\frac{7}{8}$ inch broad; form, roundish, almost flattened at apex; skin, bright, shiny red, becoming darker at maturity, easily detached from the flesh; stem, $1\frac{1}{2}$ inches long, in a rather large cavity.

MONTMORENCY.

FLESH: pinkish yellow, tender, very juicy, sprightly acid.
QUALITY: very good for cooking.
VALUE: for market, first class.
SEASON: mid July.
ADAPTATION: general over the Province.

OREL 25.

One of the hardiest of the Morello cherries; reported upon favorably by the northern stations, and considered by Mr. Jones, of the St. Lawrence station, the best all round cherry yet tested for cold sections.

ORIGIN: Russia; imported by Prof. Budd in 1883.

TREE: rather a slow grower; an early and abundant bearer; habit, round spreading head.

FRUIT: medium size, $\frac{5}{8} \times \frac{7}{8}$ of an inch; form, roundish; color, carmine; stem, $1\frac{1}{4}$ to $1\frac{1}{2}$ inches, in a round cavity; apex, a distinct depression; suture, partly traceable.

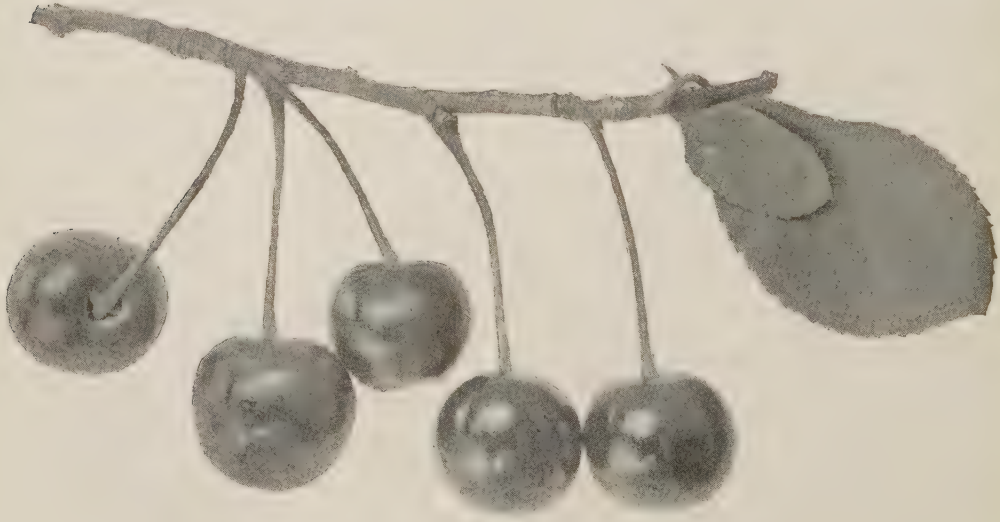
FLESH: color, yellowish; texture, tender, juicy; juice, uncolored; flavor, mild subacid.

QUALITY: dessert, poor; cooking, good.
VALUE: market, first class.
SEASON: mid July.
ADAPTATION: one of the hardiest varieties.

OREL.

OSTHEIM. (*Griotte d'Osthcim.*)

This Morello cherry was distributed throughout the Province by the Ontario Fruit Growers' Association. The fruit is of fair size, productive enough to be profitable, and good for all purposes. Its hardiness should make it a special favorite in the colder sections to succeed the Montmorency.



OSTHEIM.

ORIGIN: South of Spain, brought to Germany early in the 18th Century, and cultivated near Ostheim, Saxe-Weimar, whence its name.

TREE: third rate in vigor, almost a dwarf; first in hardiness, and second rate in productiveness; group, Morello.

FRUIT: medium, about 9-10 × 13-16 in. in length and breadth. The variety must vary, since Dr. Hogg describes it as large, and LeRoy describes the stalk 2 inches long, set in a pronounced cavity; form, round, slightly depressed at the side; color, very dark purple, almost black when ripe; stalk, 1⅜ inches; suture, not traceable; pit, small, cling.

FLESH: color, very dark purple; texture, tender, juicy, almost sweet when ripe, agreeable.

QUALITY: poor for dessert, fair for cooking.

VALUE: for market, third class.

SEASON: late July.

ADAPTATION: quite general; found fruiting freely on St. Joseph's Island, Algoma.

OLIVET.

From tests in the experimental orchard, we judge the Olivet to be a valuable variety for the home garden. The tree is a fine grower, and the fruit large and attractive, with a mild acid flavor, while in season it immediately succeeds the Reine Hortense.

TREE: of French origin, usually classed with the Dukes, fairly vigorous; hardy; productiveness, second rate.

FRUIT: large, ¾ by ⅞, obtuse, heart shaped, almost round; color, dark rich carmine; stem, 1 to 1¼ inches long in a broad cavity, often in pairs.

FLESH: reddish; texture, soft, melting, very juicy; juice, stains red; flavor, very mild, pleasant acid.

QUALITY: dessert, fair; cooking, very good to first class.

VALUE: not yet determined in Ontario.

SEASON: early July.

OHIO. (*Ohio Beauty.*)

A sweet cherry, succeeding Wood; not subject to rot.

ORIGIN: Ohio.

TREE: habit, upright; vigorous producer; class, Heart.

FRUIT: size, large, 12-16 by 13-16; form, heartshaped; stalk, one and a half inches long, slender, in a moderately deep, somewhat irregular cavity; color, light yellow, nearly overspread with light and dark shades of bright red.

FLESH: color, yellowish white; texture, tender, meaty, somewhat juicy; flavor, sweet, very pleasant.

QUALITY: dessert, very good; cooking, fair.

VALUE: market, second class, compared with black oxhearts.

SEASON: early to mid July.

PURITY.

A remarkably fine Morello cherry, ripening slightly in advance of the Early Richmond, and very productive. It closely resembles Dyehouse.

TREE: fairly vigorous, healthy and productive; an early bearer.

FRUIT: size, fair, ⅝ × ¾ of an inch; form, roundish; color, very dark red; stem long, 1½ to 2 inches, set in a deep cavity; apex, much depressed; pit, small.

FLESH: color, yellowish; texture, tender; very juicy; flavor, subacid, pleasant.

QUALITY: dessert, fair; cooking, very good to best.

VALUE: market, first class.

SEASON: late June to early July.

PLYMOUTH. (*Plymouth Rock.*)

A valuable white Bigarreau, because not subject to rot, and a fine shipper.

ORIGIN: Connecticut.

TREE: vigorous; very productive; an early bearer.

FRUIT: medium, $\frac{3}{4} \times \frac{3}{4}$ of an inch; heart shaped; color, bright red in sun on yellowish ground; stem, $1\frac{3}{8}$ inches long in a one-sided cavity.

FLESH: yellow; texture, tender, meaty, moderately juicy; flavor, sweet, rich, excellent.

QUALITY: very good for dessert.

VALUE: market, second class.

SEASON: mid July.

RICHMOND. (*Early Richmond.*)

(*Virginian May; Kentish Pie of Hogg; Hative of LeRoy.*)

This Morello cherry appears to be of French origin, and George Lindley supposed that it had been brought into England from Flanders in the reign of Henry III.

TREE: slow grower, slender in branch; very hardy; very productive in proportion to its size.

RICHMOND.

FRUIT: Below medium, free from rot and not very subject to curculio; form, almost round, though slightly flattened; skin, uniformly of a bright red, becoming darker as it matures; stem slender, about one inch in length, often carrying the calyx, inserted in a good-sized cavity; apex, set in a small indentation.

FLESH: very tender in texture; yellowish with abundant uncolored juice; flavor quite acid; pit small.

QUALITY: poor for dessert, but first class for all culinary purposes.

VALUE: very good for market.

SEASON: early to mid July.

ADAPTATION: succeeds wherever cherries are grown in the Province.

ROCKPORT.

A Bigarreau originated by Prof. Kirtland, of Cleveland, Ohio. Its season of ripening is about the same as Governor Wood, but it is a heavier bearer of fruit, about the same size and less highly colored. It would be profitable were it not so subject to rot, but nearly every year we have lost a large portion of the crop of this variety at Maplehurst from this cause. Like the other Bigarreaus, it is too firm a cherry to be a favorite with the birds.

TREE: upright, spreading; fairly vigorous; very productive.

FRUIT: large, roundish, obtuse, heart-shaped; skin, amber, nearly covered with bright red.

FLESH: pale yellow; texture, firm, juicy; flavor, sweet and good.

QUALITY: dessert or cooking good.

VALUE: market, second class.

SEASON: late June.

ROYAL DUKE.

A fine plum variety, but it ripens unevenly and is inferior to the Late Duke, both in quality and productiveness.

ORIGIN: France.

TREE: very upright; vigorous; fairly productive; Duke.

FRUIT: medium size, half by three-quarters of an inch in diameter; form, roundish, heart shaped; color, light red, crimson or mottled when ripe; stem, one and a half inches long, set in a round, regular cavity; apex, a dimple.

ROYAL DUKE.

FLESH: flesh color; texture, moderately firm, juicy; flavor, subacid.

QUALITY: cooking, good.

VALUE: market, first class.

SEASON: early July.

RUSSIAN MORELLO. (*Russian 207.*)

A good cooking cherry.

ORIGIN: Russia.

TREE: vigorous; productive.

FRUIT: small, ½ inch long by ⅝ wide; roundish in form; color, dark red; stem, 2 inches long, in a shallow cavity.

FLESH: color, red, with colored juice; texture, tender, moderately juicy, semi-cling; flavor, ordinary.

QUALITY: dessert, useless; cooking, good.

VALUE: market, second class.

SEASON: mid July.

SCHMIDTZ. (*Schmidtz' Bigarreau.*)

A magnificent cherry, but so far not sufficiently productive.

TREE: upright; very vigorous; not very productive; group, Bigarreau.

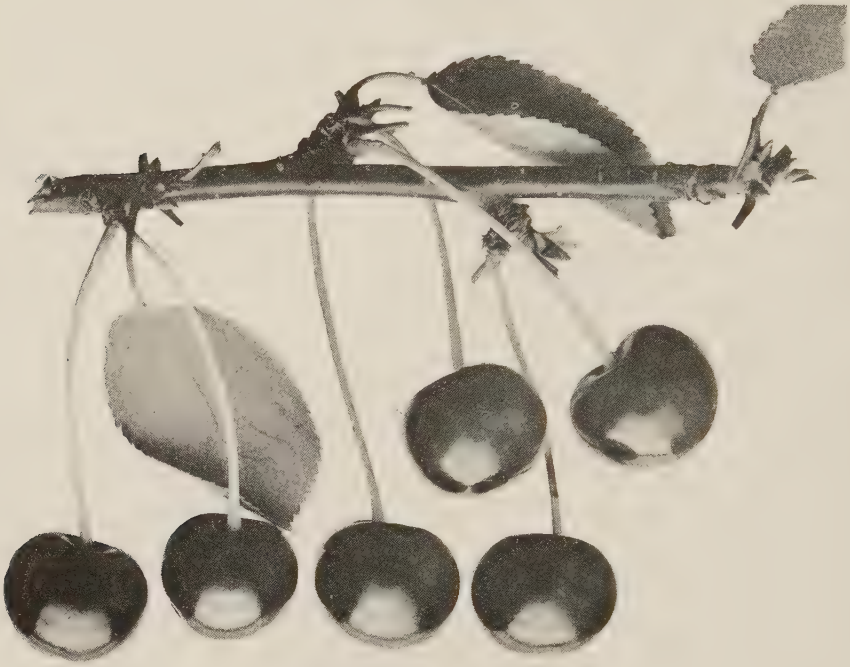
FRUIT: very large; form, obtuse, heart shaped; color, dull red, mottled with rich red; stem, 1¼ inches long in a large cavity; suture, slight.

FLESH: color, reddish; texture, firm, moderately juicy, flavor, sweet and rich.

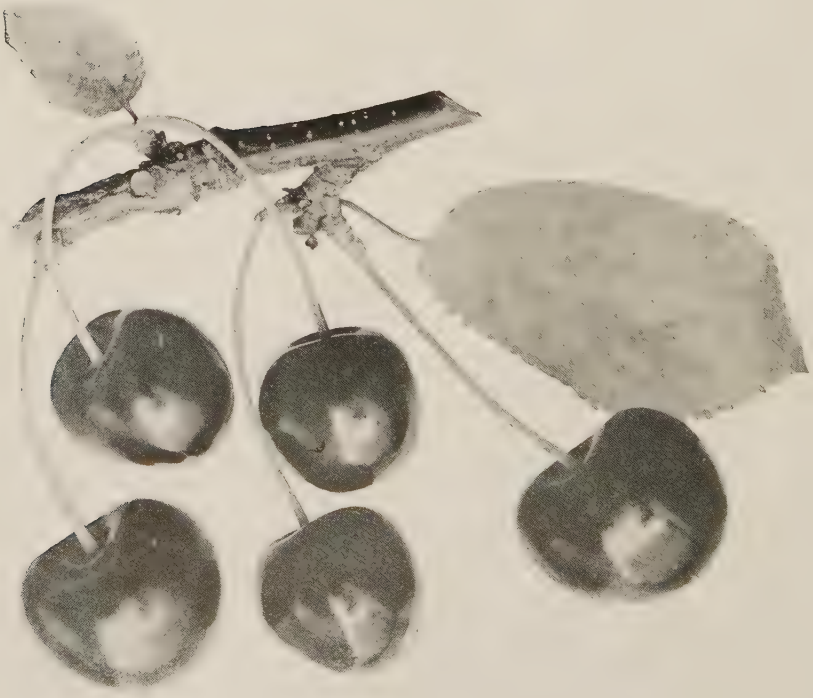
QUALITY: first class for dessert.

VALUE: market, first class.

SEASON: late July.



RUSSIAN MORELLO.



SCHMIDTZ.

SPANISH. (*Yellow Spanish.*)

Of the Bigarreau cherries, this is one of the finest, both on account of its great size and its delicious flavor. The tree grows to a very large size, surpassing in this respect any other cultivated variety with which we are acquainted. It does not average very productive, because the fruit often blasts and drops, or is destroyed by Monilia. When, however, it does mature a good crop, the yield is enormous.

The variety is of European origin, and was introduced into the United States in 1800.

TREE: very vigorous, of large growth; habit, spreading, fairly productive.

FRUIT: very large and of a beautiful waxy lustre; form, round, obtuse, heart-shaped; skin, clear amber, nearly covered with red when exposed to the sun; stem, stout, 1½ inches long, in a wide cavity; suture, traceable.

FLESH: pale yellow; texture, firm, juicy, breaking; flavor, sweet, delicious when well ripened.

QUALITY: dessert, very good; cooking or canning, very good.

SEASON: early July.

VALUE: market, first class.

SPANISH.

SUDA. (*Suda Hardy.*)

A fine Morello cherry, but of about the same season as the Montmorency and hardly as productive.

ORIGIN: Missouri.

TREE: habits, round head, Kentish; fairly vigorous, very hardy; productive.

FRUIT: size ⅞ of an inch in diameter; form, roundish, slightly flattened; color, red; stem, 1½ to 1¾ inches long, set in a regular cavity; apex, very slight; suture, barely traceable.

FLESH: yellowish white; texture, soft, tender, juicy; flavor, tart.

QUALITY: dessert useless; cooking very good.

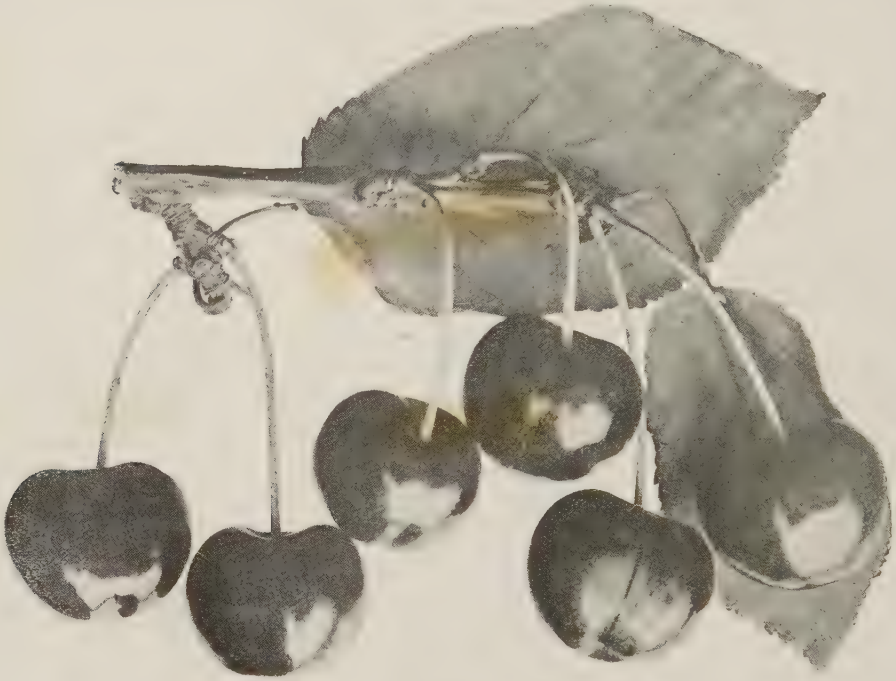
VALUE: market almost first-class.

SEASON: mid July.

TARTARIAN. (*Black Tartarian.*)

Of black cherries this is one of the choicest, whether for market or for dessert on the home table. Of large size and delicious flavor, it is relished by all cherry lovers, and being somewhat soft-fleshed, it is very subject to the ravages of birds; it is also

subject to rot in wet seasons. On this account it is often necessary to harvest and ship it a little on the green side. It is not so productive as some others, but it makes up for this by bringing a higher price.



TARTARIAN.

ORIGIN: Russia and Western Asia, introduced into England in 1796, and thence to America.

TREE: erect, vigorous, attaining large size; fairly productive; group, Heart.

FRUIT: very large, ⅞ × 1 inch, heart-shaped, of somewhat irregular outline; stem, 1¾ inches long; skin, bright purplish black.

FLESH: dark purple, tender and juicy; flavor, rich and delicious.

QUALITY: dessert, very good.

VALUE: market, first class.

SEASON: early July.

ADAPTATION: south of Lake Ontario, and in sheltered places a little further north.

WINDSOR.

A valuable late cherry for either home use or market, its firm flesh making it a better shipper than most dark-colored cherries. Indeed, from the middle to the end of July, when this cherry is at its best, there is no other to compete with it, the Elkhorn being just over. The tree is not an early bearer, and the fruit is very subject to the rot in some locations and needs thorough spraying with Bordeaux to prevent this fungus

ORIGIN: by James Dougall Windsor, Ontario.

TREE: a vigorous, upright, symmetrical grower, healthy, very hardy and productive.

FRUIT: large, 15-16 inch long by 1 inch wide; form, round, obtuse, heart shaped; color, dark red, turning darker as it hangs; stem, 1½ inches long, set in a moderately deep cavity; in twos and threes; suture, obscure.

FLESH: yellowish, with reddish tint; texture, firm, moderately juicy; flavor, rich and sweet.

QUALITY: dessert, very good; cooking, poor.

VALUE: first class.

SEASON: late July.

ADAPTATION: farther north than most Bigarreau cherries.

WINDSOR.

WOOD. *(Governor Wood.)*

This variety has proved itself a most satisfactory cherry for both dessert and market purposes. It is a very productive variety, and, though somewhat tender in flesh, is not nearly so subject to ravages by birds as Early Purple or Tartarian. Originated by Prof. Kirtland, of Cleveland, Ohio, U.S.A.

TREE: upright, spreading, healthy, vigorous and hardy wherever the peach succeeds.

FRUIT: medium to large, ¾ to ⅞ of an inch in length and breadth respectively; form, roundish-heart-shaped; skin, light yellow, shaded with light to deep red; stem, 1½ to 1¾ inches long in a broad, deep cavity; suture, distinct on one side.

FLESH: yellowish; texture, tender, juicy; flavor, sweet, aromatic and delicious.

QUALITY: dessert, very good.

VALUE: market, first and second class.

SEASON: late June.

GOV. WOOD.

THE PEACH

The peach is the tenderest of the large fruits grown in Ontario, and the fact that it can be grown so successfully in some parts of the Province has done much to dissipate the idea which at one time prevailed in the United States and abroad, that the climate of Ontario was too severe for anything but the hardiest fruits.

The district in Ontario where the peach succeeds best is the Niagara Peninsula, where Lake Ontario and Lake Erie do much to amlieorate the climate and prevent in a large measure the extremes in temperature which are fatal to peach culture. In the Essex Peninsula, or the extreme southwestern part of the Province, the peach also succeeds well, but has in the past been more subject to root-killing in winter. This may probably be guarded against in the future by the more general use of cover crops.

The peach also does fairly well where the soil is suitable all along the Lake Erie-Huron shores, the most favorable locations, however, being within four or five miles of the water. During recent years it has been found that the peach will thrive along the shore of Nottawasaga Bay, which is known as the Georgian Bay district, but up to the present time only a limited number of trees have been planted.

Peaches are raised for home use all over the western part of the Province with varying degrees of success, depending on the protection afforded and the soil, but where the temperature falls much more than 10 degrees Fahr. below zero success is very uncertain. Probably the extreme northern limit where peaches have been produced in the open is at Orillia, though the trees lived but a few years. They have been grown as far east as the city of Belleville, and perhaps further.

The market for the best peaches is good, and the peach where it can be grown successfully is one of the most profitable fruits.

As the peach is a tender fruit and the trees suffer when there are extremes of temperature, and at certain seasons when there are light frosts, great judgment should be shown in choosing a site for the orchard. Where possible, a site should be chosen with an exposure facing the water. If a northern exposure is available and the site is suitable in other ways it should be utilized, as often great injury is done by spring frosts when the buds are swelling, and buds will not expand as rapidly on a northern slope as on a southern. A site where local frosts are known to occur should be avoided.

While the situation for the peach orchard is important, a site will avail little if the soil is not suitable. The soil should be as near as possible a rich warm sandy loam with an open gravelly subsoil affording perfect drainage. Orchards are occasionally found thriving on heavier soils, but success is less certain on the heavier lands. The soil should be thoroughly prepared as recommended for the apple, and no fruit will respond better to thorough tillage than the peach.

Trees one year from the bud are the best kind to plant. They should be thrifty and free from insects and disease. The best time to plant is early in the spring, although fall planting is sometimes successful. Peach trees are planted twenty feet apart. When planting, some of the best growers remove all of the side branches, leaving a mere whip, while others cut the side branches back to within one or two buds of the main stem. The advantage gained by the latter method is that the tree is stronger at the crotches and not quite so liable to split down with weight of crop. Whatever plan is adopted, the tree should be pruned back severely when set. Peaches are usually headed lower than other large fruits, from 12 to 18 inches from the ground being the usual distance at which the head is started. For the first two or three years pruning should be carefully done in order to get a well-balanced top with four or five strong branches, avoiding bad crotches. In order to keep the tree within bounds, severe heading back is necessary until the trees come into full bearing, the usual practice being to head back from one-half to two-thirds of the previous year's growth every spring, at the same time removing altogether branches which will make the top too crowded. The object is to have a tree which will bear fruit all through the head instead of merely on the outside or at the top of the tree.

The cultivation of peach orchards should be very thorough to produce vigorous growth, as the proportion of strong new growth which is made, regulates to a large extent the size of the crop, for peaches, unlike most other large fruits, are borne on the wood made the previous year.

Cover crops are very desirable in peach orchards, as the peach soils are usually deficient in humus which cover crops supply, and the latter protect the roots of the trees in winter, thus lessening the danger from root killing. As peach trees when in full bearing draw heavily on the potash in the soil, a good application of unleached ashes every two or three years is beneficial, and muriate of potash and bone meal applied at the rate of about 200 pounds per acre each, annually, should do much good, especially when barnyard manure cannot be obtained.

Where it can be managed, it usually pays well to thin peaches on the tree. This is done when they are about the size of small hickory nuts, the peaches being left from four to six and even eight inches apart on the branches.

It requires judgment to know just when to pick a peach, as much will depend upon the distance it is to be shipped. When intended for immediate consumption, no one is likely to pick a peach until it is ready to eat, but for a distant market it must be still firm, though well colored. Fruit which is picked on the green side never attains its full flavor, and, unfortunately, much fruit of this class reaches the market, and it undoubtedly lessens the consumption of this fine fruit. Bruising of peaches should be avoided, hence great care should be taken in handling them.

VARIETIES RECOMMENDED.

General List, approved by the Board of Control.

General List for Niagara District only.

St. John, Early Crawford, Greensboro, Champion, *Brigdon or Garfield, Fitzgerald, *Reeves, *Niagara, Elberta, Carmen, Beers Smock.

*Very similar, and any of these varieties may be set, but all are not needed to cover the season.

DISTRICT LISTS.

NIAGARA DISTRICT

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment).

S. H. Rittenhouse, Jordan Harbour.

St. John, Early Crawford, Fitzgerald, Elberta, Lemon Free, Beers Smock.

J. W. Smith & Sons, Winona.

Triumph (5); Leamington (5); St. John (15); Early Crawford (10); New Prolific (10); Champion (5); Rareripe (10); Elberta (20); Late Crawford (5); Lemon Free (10); Beers Smock (5).

The figures refer to the percentage of each variety that this firm recommends for planting.

C. E. Fisher & Sons, Queenston.

Commercial: Sneed (White), Triumph, Carman (White), St. John, Fitzgerald, Jacques, Reeves, Niagara, Elberta, Late Crawford, Beers Smock.

NOTE.—The Triumph requires a rich, sandy loam, well fertilized every year with well-rotted compost manure, applied during early winter, and in spring just before plowing a heavy application of muriate of potash and pure bone. Proper pruning of tree and thinning of fruit are essential.

Essex Peninsula

(Including Essex, Kent and Pelee Island).

J. L. Hilborn, Leamington.

Dewey, St. John, New Prolific, Engle, Kalamazoo, Elberta, Banner, Golden Drop, Lemon Free.

J. Atkin & Son, Leamington.

Dewey, St. Johns, New Prolific, Champion, Kalamazoo, Engle, Banner, Late Crawford, Lemon Free, Smock, Salway.

Forest District

(Including the County of Lambton).

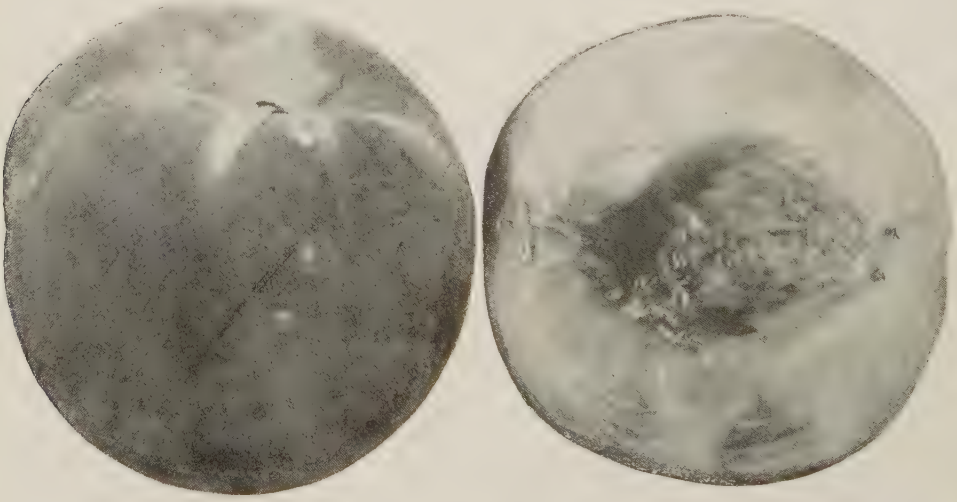
D. Johnson, Forest.

For those parts of the county influenced by the lake: St. John, Fitzgerald, Late Crawford, Engle, Kalamazoo, Elberta, Smock.

DESCRIPTION OF VARIETIES

ALEXANDER.

An early variety, grown in the Niagara district and in Essex County. It is a clingstone of poor quality for dessert purposes and poor also for cooking, so that, in competition with better varieties coming in at the same time from southern orchards, it sells at a low price in our markets.



Alexander.

Origin: chance seedling, Mount Pulaski, Ill., on farm of A. O. Alexander.
Tree: vigorous; hardy; productive.
Fruit: medium; globular, sides unequal; color greenish, suffused with dark and light red; suture broad; apex slightly sunken.
Flesh: color, greenish white; texture, firm, juicy, half melting, clings to stone; flavor, sweet and fairly good.
Quality: dessert, poor; cooking, poor.
Value: market, second class.
Season: early August.

BANNER.

A popular late market peach among the Essex fruit growers.

ORIGIN: Essex County, Ontario; first fruited on a large scale in 1903.

TREE: hardy and productive.

FRUIT: medium to large; round; color, yellow with red cheek; attractive.

FLESH: yellow; texture, fine grained, moderately juicy; flavor rich.

QUALITY: good.

VALUE: market, first class.

SEASON: early October.

BEERS SMOCK.

The best late peach for commercial planting.

ORIGIN: New Jersey.

TREE: vigorous, productive, hardy, spreading and somewhat droopy in habit of growth.

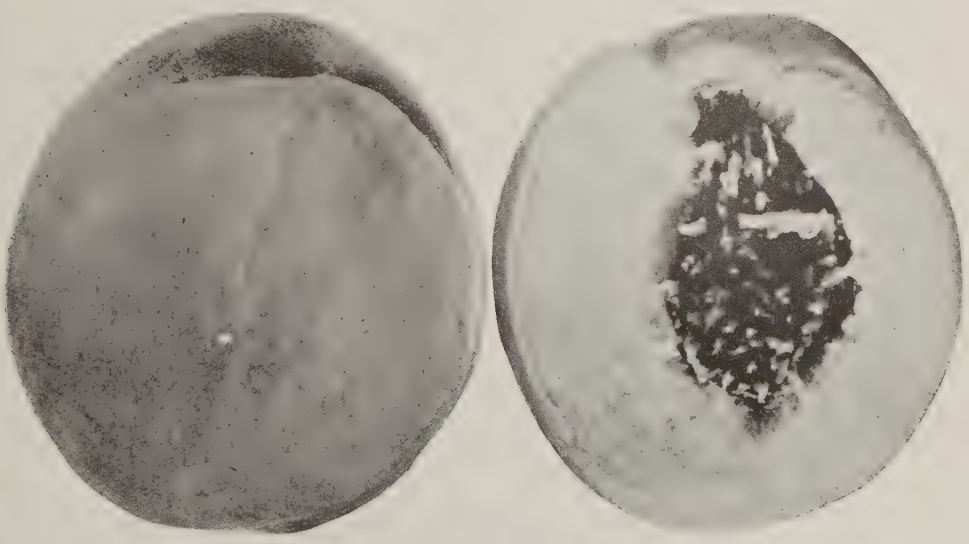
FRUIT: medium to large; dull yellowish colored with reddish blush; free stone.

FLESH: yellow, very firm.

QUALITY: the best late canning peach.

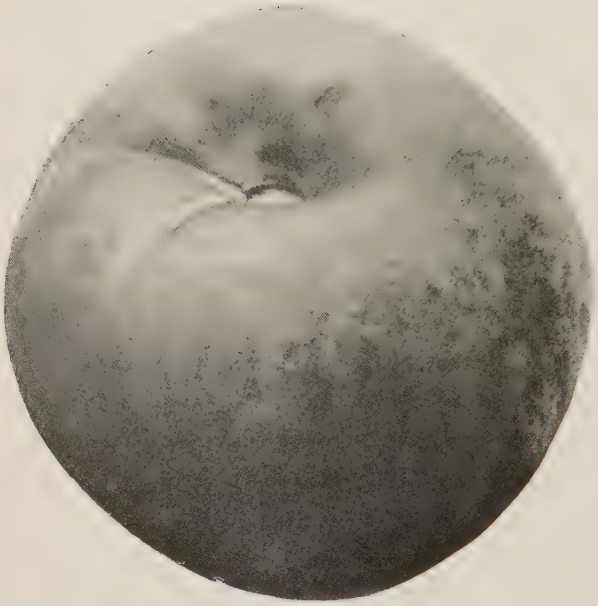
VALUE: first class for canning.

SEASON: mid-October, winds up season.



BEERS SMOCK.

BELLE OF GEORGIA.



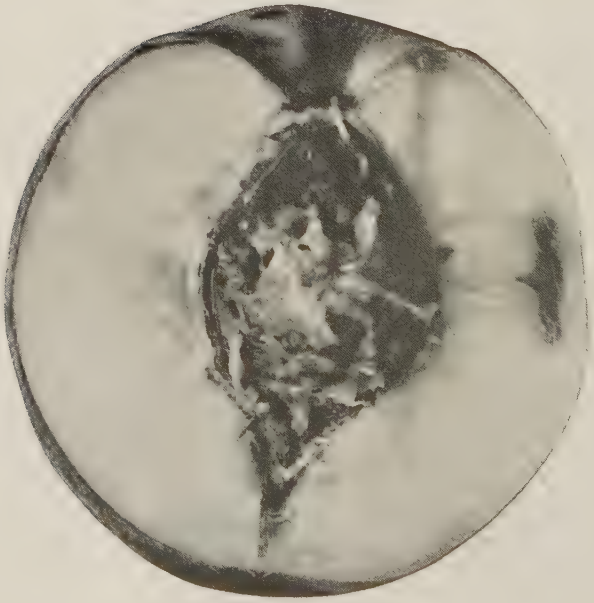
Belle of Georgia.

Origin: Georgia.

Tree: hardy and productive; white fleshed; roundish, oblate; medium to large; color, creamy white, with red blush; free stone.

Quality: very good.

Season: with Elberta.



Section of Belle of Georgia.

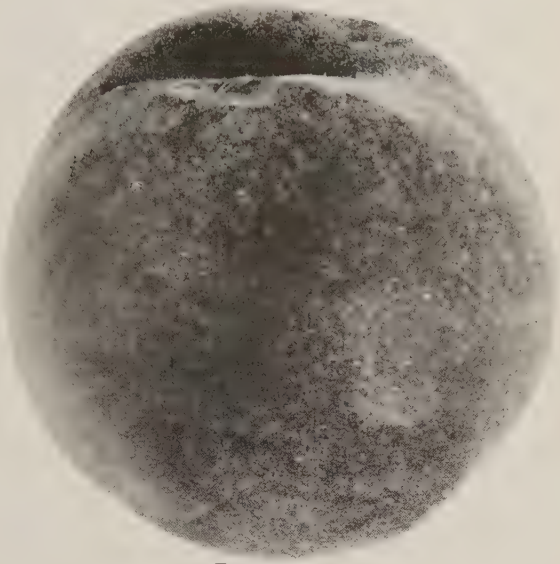
BRIGDON (*Garfield*).

A good commercial variety, of the Early Crawford class.

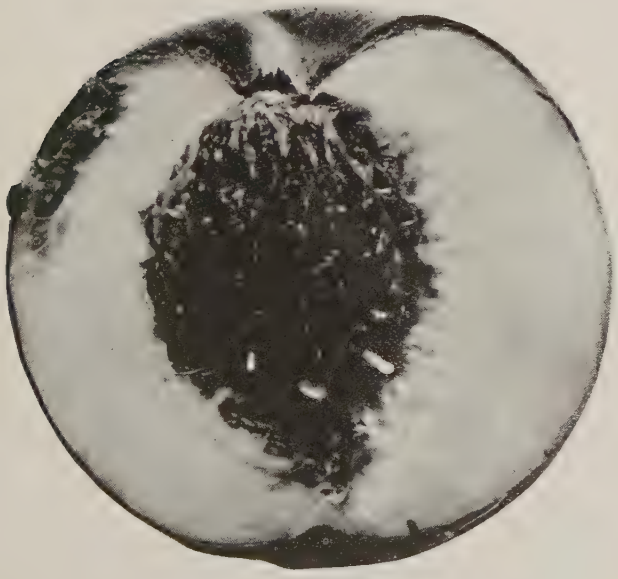
ORIGIN: New York State.

TREE: vigorous; productive.

FRUIT: size, medium to large; form, roundish oval; color, yellow with red cheek; suture traceable.



BRIGDON.



SECTION OF BRIGDON.

FLESH: free; color, yellow; texture, tender, very juicy; flavor rich, vinous.

QUALITY: first-rate for all purposes.

VALUE: first class for market.

SEASON: late August to early September.

BOWSLAUGH.

Esteemed for canning, but inferior in size to the Longhurst, which it closely resembles.

ORIGIN: Grimsby, Ontario, with Mr. Bowslaugh.

TREE: productive.

FRUIT: size small to medium; color of skin, yellow with a dull red cheek; suture traceable more than half way around; cavity deep, irregular, apex prominent.

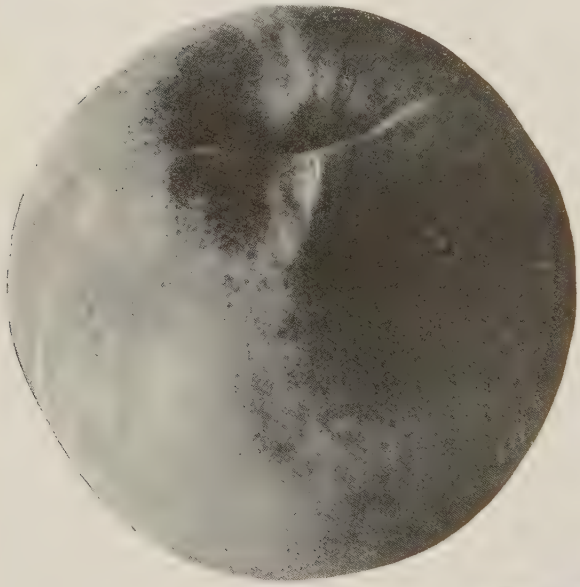
FLESH: free from pit; yellow, pink at pit; texture, tender, not very juicy, lacking in flavor, neither sweet nor acid.

QUALITY: dessert, poor; cooking, fair to good.

VALUE: market, second class.

SEASON: first half of October.

CARMEN.



CARMEN.

A very productive, handsome, white-flesh peach.

ORIGIN: Texas.

TREE: hardy, vigorous and productive.

FRUIT: large, resembling Elberta, creamy white, with deep red blush; skin very tough.

FLESH: white, tender and of fine flavor, juicy.

QUALITY: good.

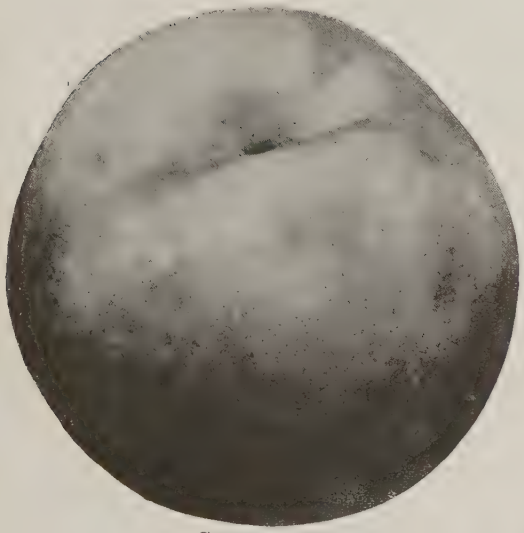
VALUE: first class; highly commended in parts of New York State, and is doing well in Niagara Peninsula.

SECTION OF CARMEN.

CHAIRS CHOICE.

ORIGIN: Maryland.
TREE: vigorous, productive, somewhat upright in growth.
FRUIT: very large, yellowish with red cheek, showy.
FLESH: yellow, juicy, tender, very agreeable.
QUALITY: excellent for dessert and shipping.
VALUE: a valuable variety on suitable location.
SEASON: just before Smock.

CHAMPION.



CHAMPION.

A beautiful white-fleshed peach with a red cheek, and free stone. The flavor is delicious, and it may be classed as the best dessert peach of its season, but a little tender for distant shipment.

ORIGIN: Illinois.

TREE: vigorous, moderately productive.

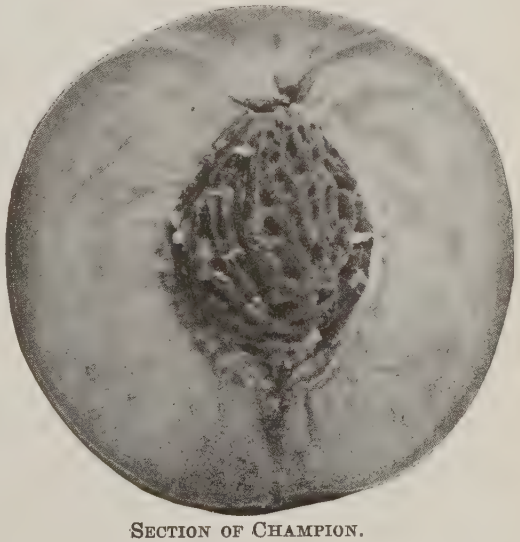
FRUIT: large; form roundish, fairly regular; color of skin, creamy white, with red cheek in the sun; suture visible two-thirds of the circumference; apex small in a slight depression; cavity deep; stone free.

FLESH: white, pinkish at the pit; texture, fine, tender, juicy; flavor, rich, sweet and agreeable.

QUALITY: dessert, among the best.

VALUE: first class for home markets, but rather tender for distant shipments.

SEASON: early September, coming in with last Yellow St. John and the first Early Crawfords.



SECTION OF CHAMPION.

CROSBY (*Excelsior, Hale's Hardy*).

CROSBY.

A peach of good quality, but scarcely large enough for the commercial orchard.

ORIGIN: Massachusetts, 1876, by Mr. Crosby, nurseryman; named Excelsior by the Massachusetts Agricultural College; Hale's Hardy, because Mr. J. H. Hale was the first grower to plant it extensively, and finally Crosby by the United states Division of Pomology.

TREE: vigorous; healthy; fairly hardy; very productive.

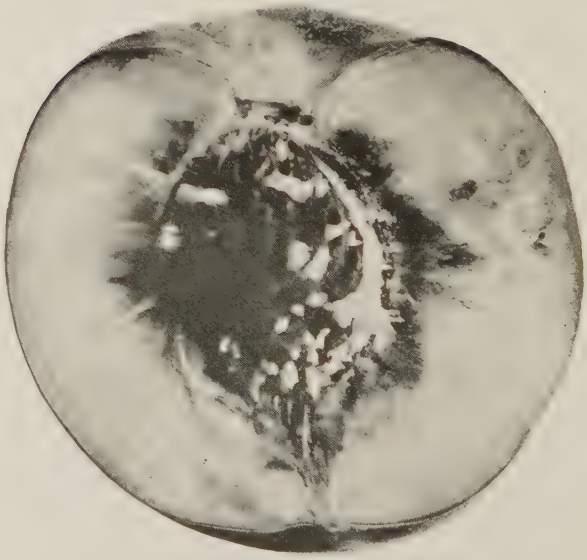
FRUIT: medium size: form almost round, slightly one-sided; color, yellow, with bright red cheeks; very pretty; cavity, deep, abrupt; apex small in a slight depression; suture, traceable.

FLESH: color, bright yellow, red at the stone; texture, fine, moderately juicy, tender; flavor, sweet and very agreeable.

QUALITY: very good for dessert and good for cooking.

VALUE: first class for home market.

SEASON: late September to early October.



SECTION OF CROSBY

CHILI (*Hill's Chili*).

Recommended for drying; a good shipper.

ORIGIN: New York State.

TREE: fairly vigorous; productive.

FRUIT: medium to large; form roundish ovate; color, pale yellow, with red cheek; down, thick, whitish; cavity, narrow, deep; suture, marked; apex, a point.

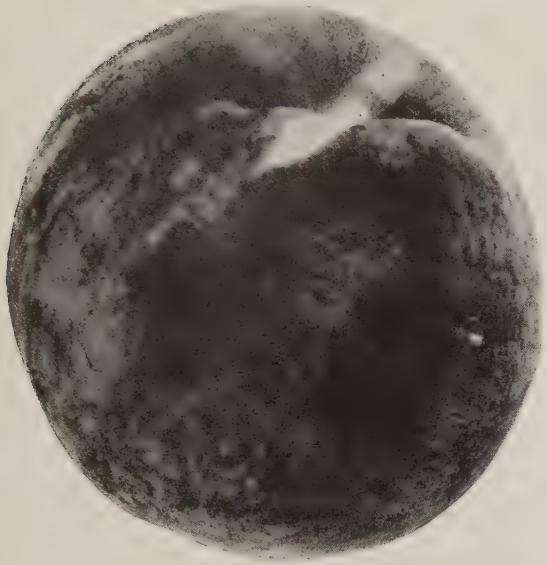
FLESH: light yellow, tinted red at the pit; texture, tender, moderately juicy; flavor, subacid; free.

QUALITY: dessert, poor; cooking, good; drying, good.

VALUE: home market, second class.

SEASON: mid-September.

DEWEY (*Admiral Dewey*).



DEWEY.

An early, yellow-flesh, free stone.

ORIGIN: Georgia.

TREE: vigorous and productive.

FRUIT: medium, yellow-flesh, free stone, meaty.

FLESH: yellow, firm.

QUALITY: fair to good.

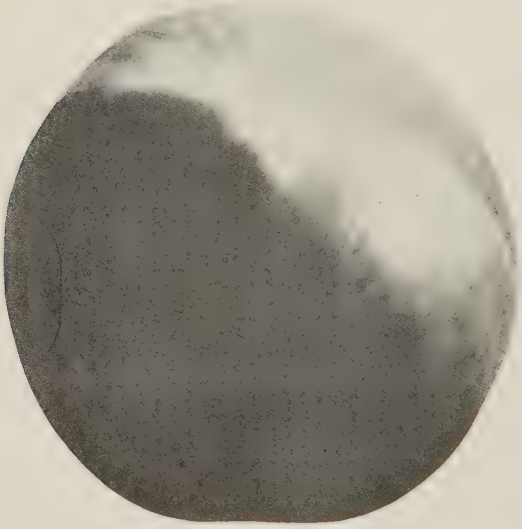
VALUE: some growers favor this variety, but the majority prefer St John.

SEASON: just before and with St. John.

SECTION OF DEWEY.

EARLY CRAWFORD.

Early Crawford has long held its place at the head of the list of peaches both for home use and for market. Its beautiful golden color, its large size, its free stone and rich flavor all unite in giving it a just claim to this position. Its buds are a little more tender than those of some other varieties, and, consequently, many growers hesitate to plant it, but where high cultivation and plenty of fertilizer is given, fine crops of luscious fruit have resulted.



EARLY CRAWFORD.

ORIGIN: Middleton, N.J., by Wm. Crawford.

TREE: vigorous; productive under favorable conditions: bloom not conspicuous.

FRUIT: large to very large, oblong; suture, shallow; apex, prominent, swollen; color, golden yellow, with rich red cheek.

FLESH: color, yellow; flavor, sweet, rich; free from stone, which often parts in middle when nearly ripe.

QUALITY: dessert and canning, very good.

VALUE: first class for market.

SEASON: early September.

SECTION OF EARLY CRAWFORD.

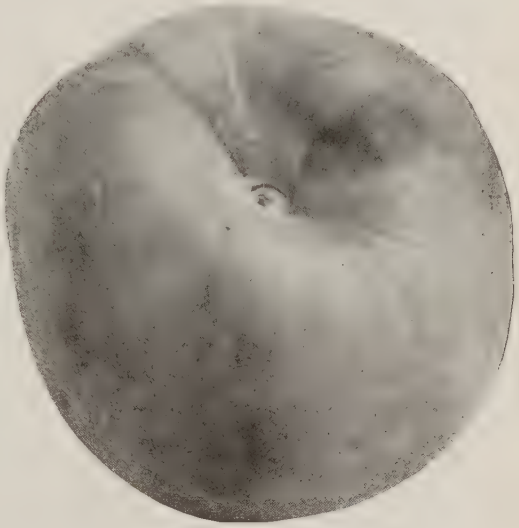
EARLY MICHIGAN.

A very good dessert peach.

ORIGIN: Georgia.

TREE: healthy, vigorous and productive.

FRUIT: medium size, wide, form round; color, cream or greenish white ground, nearly covered with crimson; cavity, large and deep; suture, very distinct from cavity to apex and beyond; pit, a clingstone.



EARLY MICHIGAN.

SECTION OF EARLY MICHIGAN.

FLESH: greenish white, red at pit; texture, tender and juicy; flavor, subacid, very pleasant.

QUALITY: dessert, very good.

VALUE: market, second class.

SEASON: middle of August.

EARLY PURPLE.

For home use, as a dessert peach, this is one of the best of its season. Between 1860 and 1870 this variety was grown as the earliest market peach in Southern Ontario, but its extreme tenderness of flesh and rapid softening after maturity led to its giving place to other varieties.

TREE: thrifty; vigorous; hardy; fairly productive.

FRUIT: form, irregular, ovate, one-sided; skin, bright red, downy; basin, deep; stone almost free.

FLESH: greenish white in color; texture, very tender, very juicy melting; flavor, sweet, rich, agreeable.

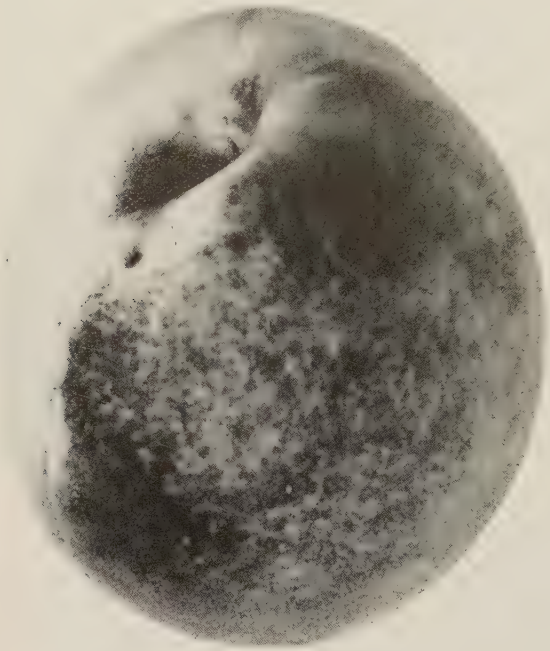
QUALITY: dessert, very good; cooking, poor.

VALUE: near market, third class; distant market, poor.

SEASON: late August to early September.

ELBERTA.

The best peach of its season for all markets and canning factories, and a variety especially suited for export by reason of its shipping qualities.



ELBERTA.

ORIGIN: Georgia; a cross between Chinese Cling and Early Crawford.

TREE: vigorous, hardy and moderately productive. The leaves are much subject to leaf curl, but this may be largely controlled by spraying.

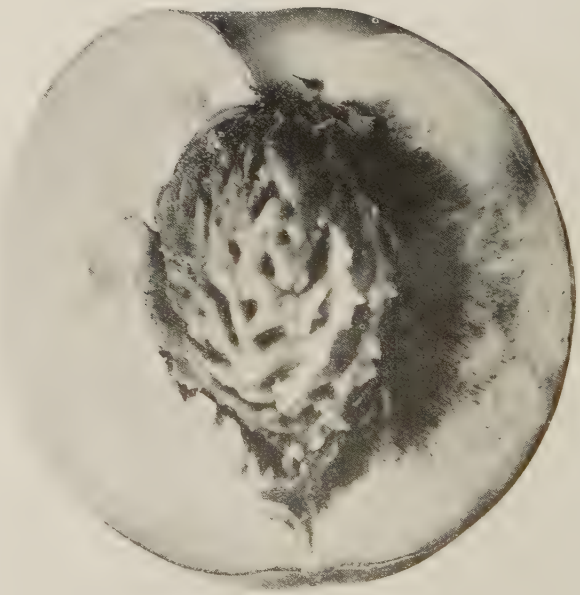
FRUIT: large, roundish oval, one side somewhat larger than the other; suture, distinct; skin, lemon yellow, with a fine red cheek; stone free, deeply corrugated, pointed.

FLESH: yellow; texture, moderately juicy.

QUALITY: dessert, fair; canning, best.

VALUE: home market, first class; foreign market, first class.

SEASON: late September, about a week later than Early Crawford.



SECTION OF ELBERTA.

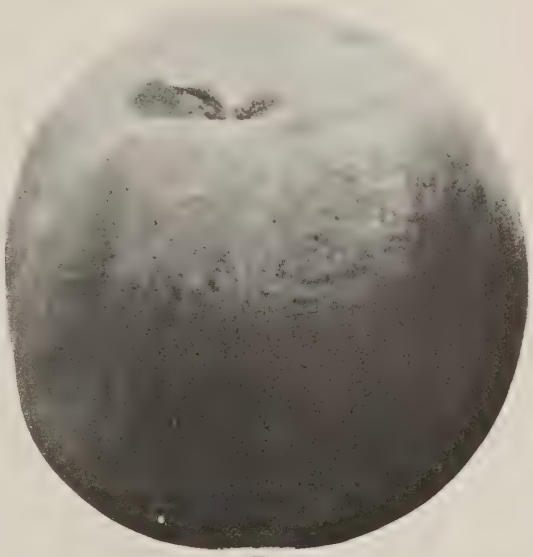
ENGOL (*Mammoth*).

A valuable variety for either home use or market.

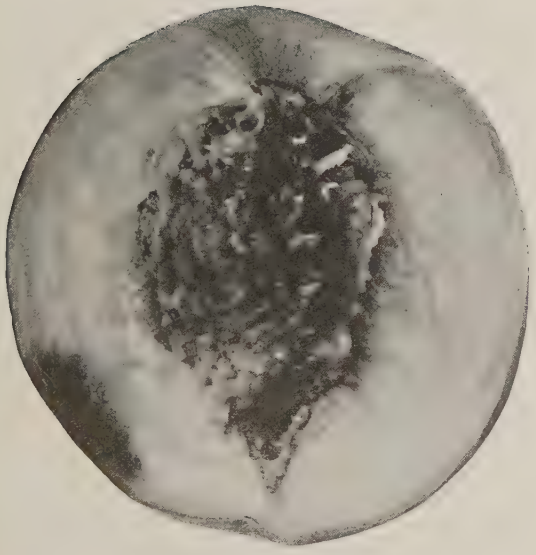
TREE: strong upright grower; quite productive.

FRUIT: medium to large; form roundish; cavity, medium; apex, slight; suture, a little over half around; color, yellow, with reddish cheek.

FLESH: color yellow, with tinge of red at pit; texture, tender, juicy; flavor pleasant, nearly sweet; free.



ENGOL.



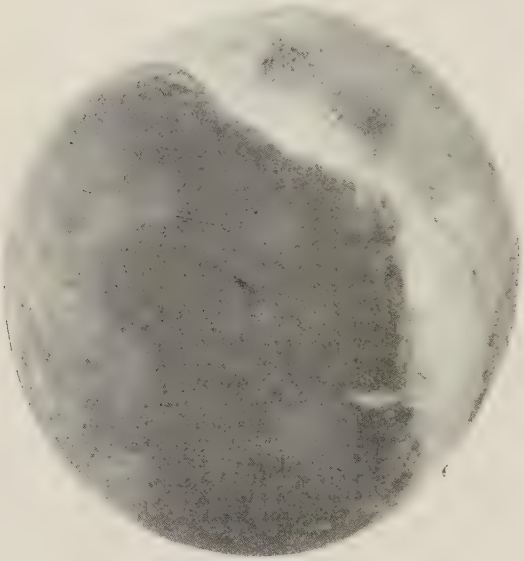
SECTION OF ENGOL.

QUALITY: dessert or canning, very good.

VALUE: market, first class. Planted extensively in Essex County.

SEASON: first half of September.

FITZGERALD.



FITZGERALD.

Since the Early Crawford has been such a popular peach both for home use and market, every new introduction of a variety which is of the same class, has been welcomed by the public, especially where it may be used to extend the season. The Fitzgerald is not so large as the Early Crawford, but to many the flavor is finer for dessert, and its season is a trifle later. Like the latter, it is too tender for very long shipments.

ORIGIN: in the garden of Mr. Fitzgerald, Oakville, Ontario, about 1895.

TREE: hardy, healthy and productive.

FRUIT: size medium to large; form roundish ovate; color, bright yellow, covered with deep red; down, moderate in quality; cavity broad and deep; apex, a small point in a slightly depressed basin; suture, distinct; stone free.

FLESH: yellow, with red at pit; texture, tender and juicy; flavor, excellent.

QUALITY: dessert, good.

VALUE: home market, first class.

SEASON: early to mid-September in Niagara district.

ADAPTATION: one of the hardiest varieties and successfully grown in Georgian Bay district.

SECTION OF FITZGERALD.

FOSTER.

A large yellow peach of the Early Crawford class, considered a little better in quality, but not so productive.

ORIGIN: J. T. Foster, Medford, Massachusetts.

TREE: vigorous; tender in fruit bud; not very productive.

FRUIT: size, large; form, roundish, slightly flattened; with a slight suture; color, bright yellow, shaded with orange red.

FLESH: free; color, bright yellow, tinged with red at pit; texture, tender, juicy; flavor, rich, vinous, pleasant, subacid.
QUALITY: dessert, good; cooking, good.
VALUE: near market, first class.
SEASON: early to mid-September.

GREENSBORO.

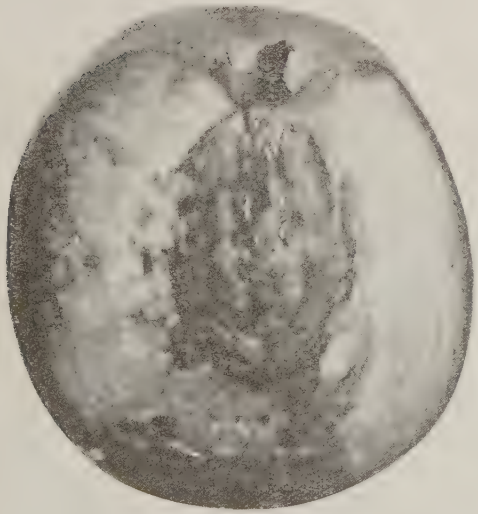
The best white-flesh dessert peach of its season for local market.

ORIGIN: North Carolina.

TREE: vigorous; very productive; an early bearer.

FRUIT: large; form flattened; color, a deep cream with bright red cheek; cavity, narrow, deep; suture, slight; apex sunken; not subject to rot.

GREENSBORO.



SECTION OF GREENSBORO.

FLESH: color, cream; texture, tender, melting, very juicy; flavor, sweet and agreeable; free stone.

QUALITY: dessert, very good.

VALUE: first class for home market.

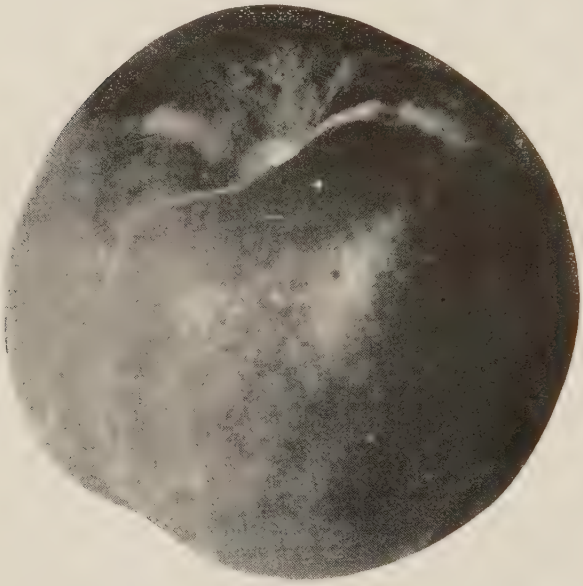
SEASON: mid-August.

GOLDEN DROP.

"Medium, roundish ovate; color rich yellow, or, as it grows in the South, 'a sort of transparent golden yellow,' often with a blushed cheek; cavity broad, shallow; suture, obscure except near apex. Flesh yellow, vinous, almost sweet, good; pit, free. Season, late September. Attractive in market." (*Budd.*)

HALE (*Hale's Early*).

An early peach of very beautiful appearance, but inclined to rot before it ripens. The flesh remains firm, even after the outside presents the appearance of being ripe, so that it is not a favorite variety. Its comparative earliness at one time made it a very popular market variety, but its season is now preceded by that of Sneed, Greensboro, Early Rivers, Alexander and Triumph.



HALE.

ORIGIN: Ohio.

TREE: vigorous, healthy and productive.

FRUIT: medium to large, form roundish; color of skin, dark red on sunny side, green with splash of red on shady side; apex, small, slightly pointed in dimpled depression; cavity, deep; suture extends to apex; pit, half free.

FLESH: greenish yellow to white; texture, firm until very ripe, then melting and juicy; flavor sweet and agreeable.

QUALITY: dessert and cooking, fair.

VALUE: home market, second class.

SEASON: late August.

SECTION OF HALE.

JACQUES RARERIPE.

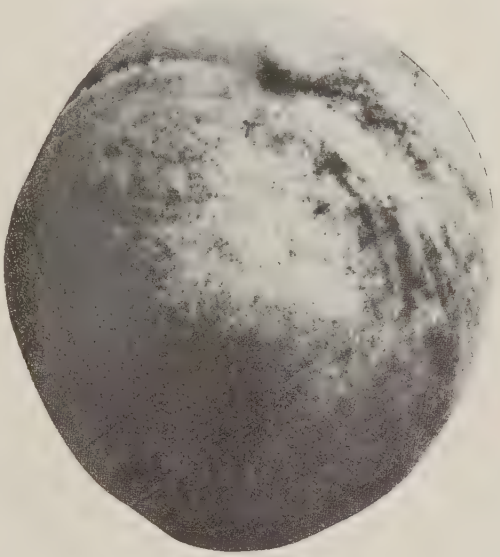
A fine yellow peach, succeeding the Early Crawford, but too tender in flesh for distant shipment.

ORIGIN: Massachusetts.

TREE: vigorous, healthy and productive.

FRUIT: size, large; form roundish oblate; color, dark yellow, shaded with red, especially on the sunny side; down, heavy; cavity, large and deep; apex in a depression; suture, distinct; stone, free.

FLESH: color, deep yellow, red at the pit; texture, tender, juicy; flavor, good, not very sweet.



JACQUES RARERIPE.

SECTION OF JACQUES RARERIPE.

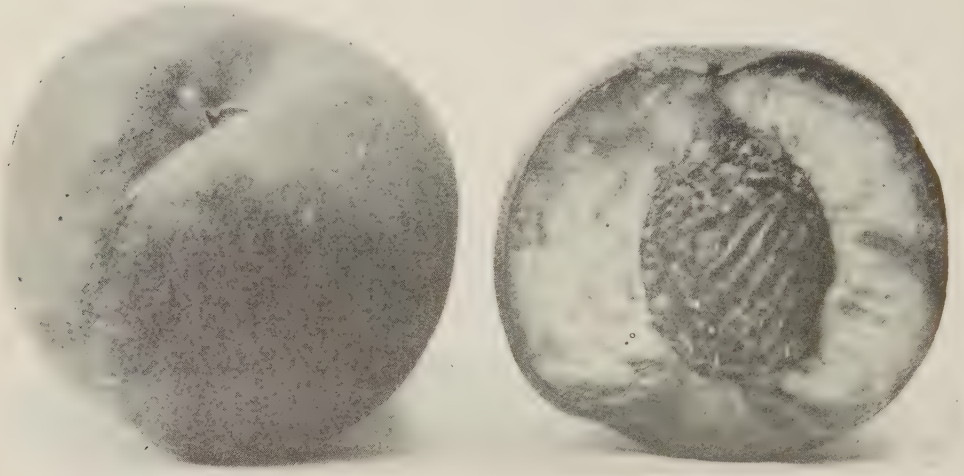
QUALITY: dessert, very good; canning, very good.

VALUE: near market, first class; distant market, second class.

SEASON: mid-September.

HYNES (*Hynes' Surprise*).

A very good early dessert peach, but the fruit is inclined to rot in wet seasons.



HYNES.

ORIGIN: introduced in 1895, by Mr. S. D. Willard, of Geneva, N.Y.
TREE: vigorous; productive.
FRUIT: form roundish, slightly one-sided; size, small; color, greenish white with bright red cheek, sometimes deep red in the sun; cavity, narrow and deep; suture, distinct; dots, numerous; skin, thin and tenacious; stone, semi-cling.
FLESH: color, yellowish white; texture, juicy; flavor, sweet and agreeable.
QUALITY: dessert, good to very good.
VALUE: home market, first class; distant market, third class.
SEASON: mid to late August.

KALAMAZOO.

A popular market peach in Michigan; inferior to Elberta.
ORIGIN: Michigan.
TREE: vigorous and very productive.
FRUIT: medium in size, form roundish oval, sides unequal; color, yellow, with red cheek; cavity, deep, narrow, irregular; apex, a small point in a slight depression; suture, traceable beyond the apex; free stone.

KALAMAZOO.

FLESH: color, yellow, red at pit; texture, moderately tender and juicy; flavor, fairly sweet.

QUALITY: dessert, poor; canning, good.

VALUE: near market, good; rather too small to sell with Elberta, or even to follow that large, showy variety.

SEASON: mid to late September.

LATE CRAWFORD.

A fine, large yellow peach, equal to Early Crawford in flavor. It has not been very profitable because the tree is not very productive.

ORIGIN: New Jersey.

TREE: vigorous; only fairly productive.

FRUIT: large to very large; color, dull yellow or olive green, with dark red cheek; cavity, large and deep; suture, traceable; free stone.

FLESH: deep yellow, red at the stone; texture, juicy and melting; flavor, rich, vinous.

QUALITY: dessert, good; cooking, very good.

VALUE: market, first class.

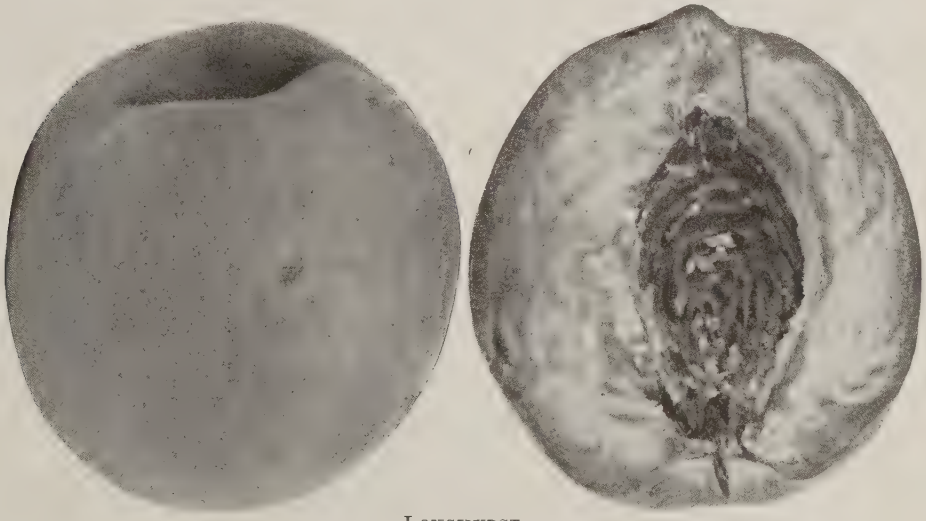
SEASON: late September.

LONGHURST.

A very productive late variety, highly esteemed for canning. It is considered a profitable variety by many peach growers, but unless given the best culture, the fruit is small and unattractive in appearance.

TREE: hardy; fairly vigorous; very productive. Budd says the fruit buds of this variety have proven exceptionally hardy in Michigan.

FRUIT: medium in size; form, oval, larger on side of suture, which is clearly traceable, ending in a pointed apex; color, dull yellow, with dark red cheek in sun; down, thick; cavity, deep, abrupt, shouldered; pit, small, free.



LONGHURST.

FLESH: color, yellow, red at pit; texture, tender, almost buttery, moderately juicy; flavor vinous, sweet, agreeable.

QUALITY: dessert, fair; canning, very good.

VALUE: valuable for canning, but owing to its productiveness this variety must be thinned rigorously and heavily fertilized or else absolutely abandoned.

SEASON: late September to early October.

LEAMINGTON.

LEAMINGTON.

Medium to large, white with red cheek; quality, excellent; juicy, sweet white flesh. Ripens about a week to ten days before Early Crawford, and is a free stone. Very productive.

LEMON CLING.

A large and showy peach, at one time planted freely in Ontario orchards, but of late discarded because of its cling stone.

ORIGIN: South Carolina.

TREE: vigorous, hardy and productive.

FRUIT: large, form roundish, narrowed towards apex, which is large and prominent, somewhat like that of the lemon; skin, deep yellow, with a dark brownish-red cheek.

FLESH: color, yellow, tinged with red at the pit; texture, firm, not very juicy; flavor, pleasant, sprightly, subacid.

QUALITY: dessert, fair; cooking, fair.

VALUE: third class. It is not advisable to have any cling stones at this time of season.

SEASON: late September.

LEWIS.

A fine market peach to succeed St. John and to precede Early Crawford.

ORIGIN: Michigan.

TREE: healthy, vigorous, very productive.

FRUIT: medium to large; form round; color, yellowish white, largely overspread with red; suture, depressed.

FLESH: yellowish white, red next to pit; texture, tender, juicy; flavor, very pleasant.

QUALITY: dessert, good; cooking, good.

VALUE: home market, first class; distant market, second class.

SEASON: mid-September.

McCONNELL.

A very attractive-looking, late, white-flesh peach.

ORIGIN: a seedling raised by Mr. McConnell, Essex County.

TREE: a good, thrifty grower; productive.

FRUIT: above medium; color, white with beautiful crimson blush; form, round.

FLESH: cling; color, pure white; texture, firm, juicy; flavor, pleasant.

QUALITY: dessert, poor; cooking, poor; good pickler.

VALUE: not tested.

SEASON: mid-October.

MATTHEW (*Matthew's Beauty*).

A fine attractive appearing yellow peach, with beautiful cheek, resembling Elberta in exterior, but nearly a week later, and of much better quality. From its appearance it might be called "late Elberta."

FRUIT: form, roundish ovate, slightly flattened; size, about 2¼ inches; color, yellow with dark red cheek; suture, half round; apex, depressed; cavity, narrow, deep.

FLESH: free; color, yellow; texture, moderately firm; flavor, sweet, good.

QUALITY: dessert or cooking, very good.

VALUE: market, first class.

SEASON: late September to early October.

MOUNTAIN ROSE.

Desirable in the home garden as a dessert peach only.

ORIGIN: New Jersey.

TREE: vigorous; productive.

FRUIT: size, medium to large; form, roundish; suture, traceable; apex, a point; color of skin white, with bright red cheek.

FLESH: creamy white, with red tint at the pit; texture, tender, melting, very juicy; flavor, sweet, delicious; free.

QUALITY: first class for dessert.

SEASON: early to mid-September.

VALUE: market, second class.

MOUNTAIN ROSE.

SECTION OF MOUNTAIN ROSE.

NEW PROLIFIC.

A peach of the Crawford type, a few days later, which is highly esteemed by many peach growers. Like the Crawford, it is too tender in flesh.

TREE: healthy; vigorous; very productive.

FRUIT: size, medium to large; form, round; color, yellow, with bright red cheek; cavity, narrow and deep; suture, distinct, extending beyond the apex.

NEW PROLIFIC.

FLESH: yellow; slightly tinted with red at the pit; texture, tender; flavor, sweet; delicate; very pleasant; free from pit.

QUALITY: dessert, first class; canning, first class.

VALUE: first class.

SEASON: mid to late September.

OCEANA.

A cross between Early Crawford and Hill's Chili.

TREE: hardy and productive; vigorous.

FRUIT: medium to large, very attractive, yellowish with red blush.

FLESH: yellow, free stone, firm.

FLAVOR: good.

VALUE: very promising in Niagara district; said to be a good shipper.

SEASON: before Late Crawford.

NIAGARA.

ORIGIN: Niagara County, New York.

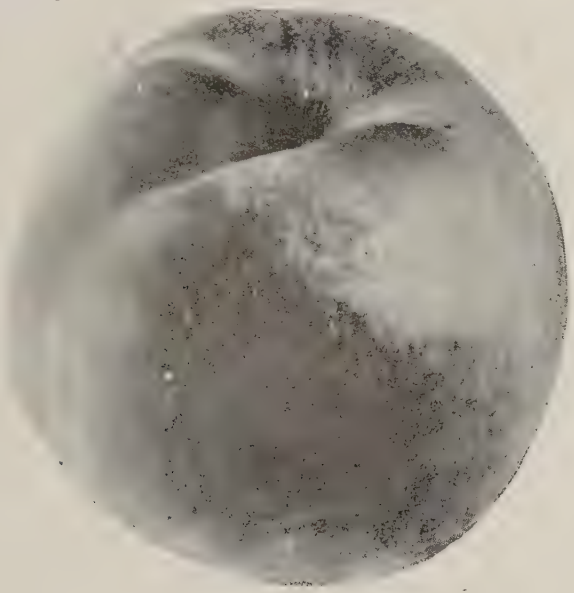
TREE: hardy, productive.

FRUIT: large, round, yellow with pink cheek; free stone; flesh yellow; flavor rich.

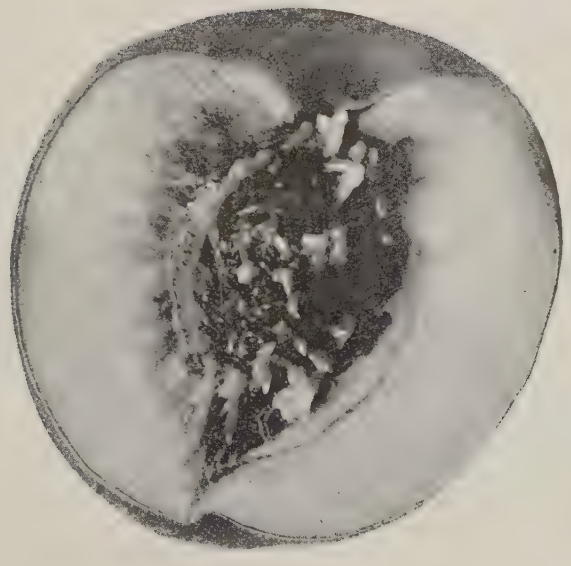
QUALITY: good.

VALUE: first class.

SEASON: after Early Crawford.



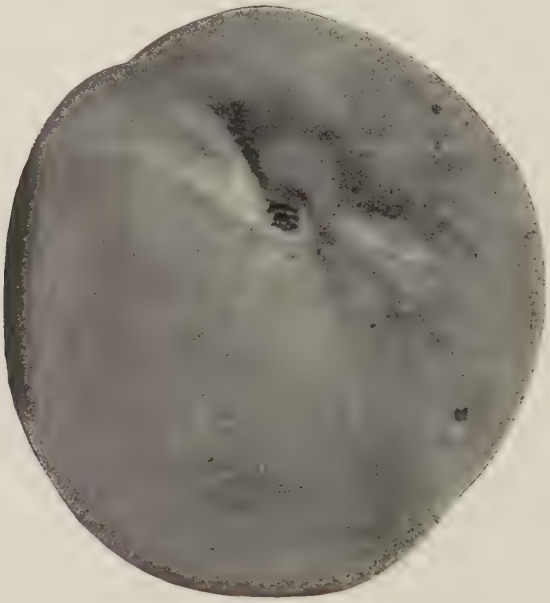
NIAGARA.



SECTION OF NIAGARA.

RIVERS (*Early Rivers*).

When first introduced, this peach was widely planted for market because of its fine size and early season, coming in between Alexander and Hale. Its great fault is its delicate skin and tender flesh which show the slightest bruise, so that the most careful handling is necessary. The fruit needs thinning for size and color, and then it can be sent only to the nearest markets.



RIVERS.

SECTION OF RIVERS.

ORIGIN: by Thos. Rivers, of Sawbridgeworth, England.

TREE: very vigorous; fairly hardy; very productive.

FRUIT: medium to large, roundish, often somewhat oblong and flattened on the sides, and more or less one-sided; skin smooth, light green, almost white, delicately shaded with red; cavity, small and deep; apex, small, in a narrow, deep depression; suture, deep and distinct; stone, half cling, inclined to split.

FLESH: color, creamy white; texture, melting, juicy.

QUALITY: fair for dessert; fair for cooking.

VALUE: second class for near market.

SEASON: mid-August.

OLDMIXON FREE.

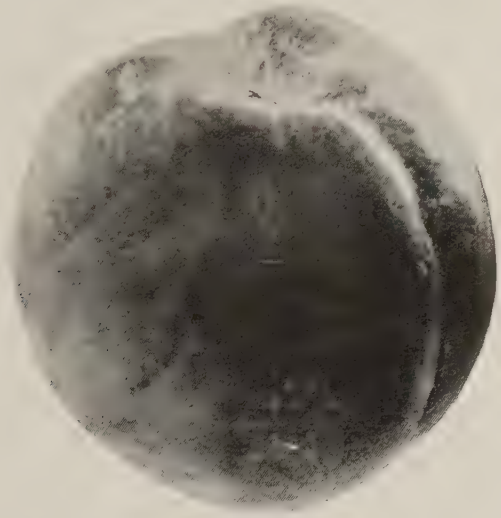
An old standard variety considerably planted in the older commercial peach orchards of the Niagara Peninsula; a white flesh peach with a red cheek, presenting a good appearance in the basket; its fault as a market variety is its dropping almost before it has attained full color and its tender flesh; valuable for dessert purposes.

ORIGIN: a seedling of Oldmixon Cling which was brought to America by Sir John Oldmixon.

TREE: vigorous; spreading; moderately productive.

FRUIT: medium to large; form roundish oval, one-sided; suture, distinct toward the apex, which is not marked; cavity, narrow; color, creamy white, marbled with red and with a deep red cheek; bloom, thin.

FLESH: free stone; color, creamy white, red at pit; texture, tender; flavor, sweet, rich, vinous.

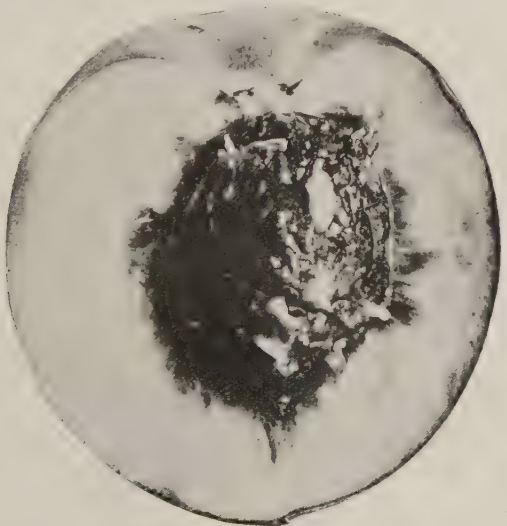


OLDMIXON FREE.

QUALITY: dessert, very good; cooking or canning whole, very good.

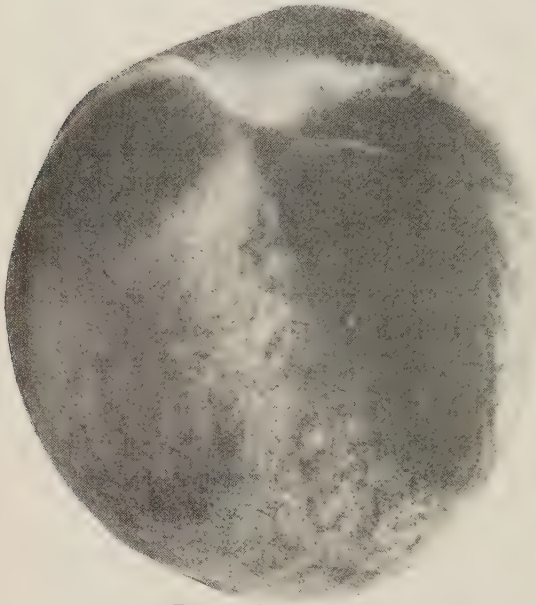
VALUE: market, hardly first class compared with larger yellow varieties of the same season.

SEASON: early September.



SECTION OF OLDMIXON FREE.

REEVES FAVORITE.



REEVES FAVORITE.

A profitable peach because of its large size and excellent color, but lacking in productiveness.

ORIGIN: in New Jersey, by Samuel Reeves.

TREE: thrifty; upright; moderately productive.

FRUIT: large, form roundish; color, yellow with red cheek; cavity, deep and broad; suture, traceable; apex, pointed, distinct.

FLESH: color, yellow, with red tint at the pit; texture, tender, juicy; flavor, sweet, vinous, very pleasant; free.

QUALITY: dessert, good; canning, good.

VALUE: market, first class.

SEASON: mid-September, a few days later than Early Crawford.

SECTION OF REEVES FAVORITE.

REID.

A round yellow-flesh peach, closely succeeding Elberta.

TREE: healthy, vigorous, productive.

FRUIT: medium to large in size; form, roundish ovate; color, yellow nearly covered with red; suture, distinct; apex, depressed, prominent.

FLESH: free; color, yellow marked with red at pit; texture, tender, juicy; flavor, moderately sweet.

QUALITY: cooking, good; dessert, fair.

VALUE: market, second class.

SEASON: late September.

SALWAY.

A popular late market variety, which usually ripens in the peach sections of Ontario before frost. Hilborn says that in Essex it reaches maturity four years out of five.

ORIGIN: England.

TREE: vigorous; productive; fairly hardy.

FRUIT: large; roundish, somewhat one-sided; skin, yellow with red cheeks on sunny side; suture, broad.

FLESH: free; color, yellow, red at the pit; texture, tender, juicy; flavor, sweet, good.

QUALITY: good.

VALUE: market, first class if well ripened.

SEASON: mid-October.

SMOCK.

A first-class late market peach.

ORIGIN: New Jersey.

TREE: moderately vigorous; wood brittle; leaves not subject to curl; productive.

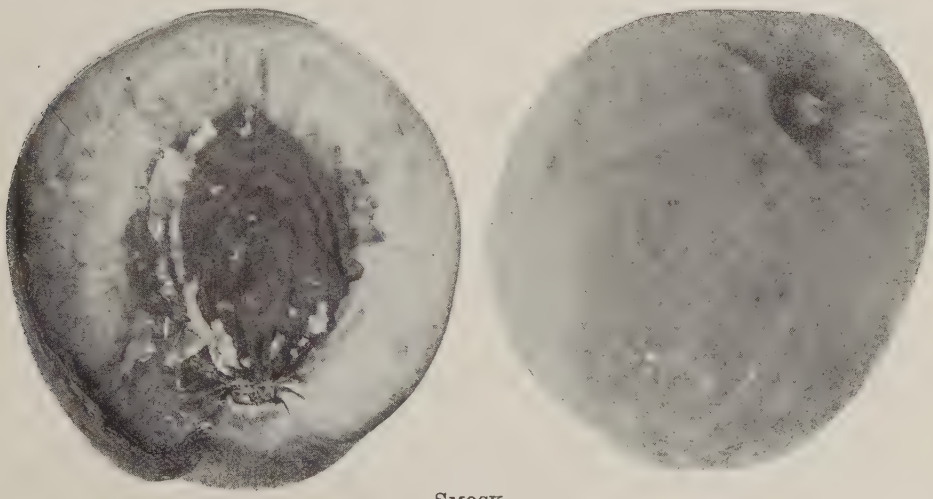
FRUIT: large; oval; color, yellow with orange-red cheek; bloom, heavy; cavity, narrow and deep; suture, obscure; apex, slightly extended.

FLESH: free; color, yellow, with red at pit; texture, dry, tender; flavor, agreeable, not sweet, distinctive.

QUALITY: cooking or drying, good.

VALUE: market, first class for its season.

SEASON: early October.



SMOCK.

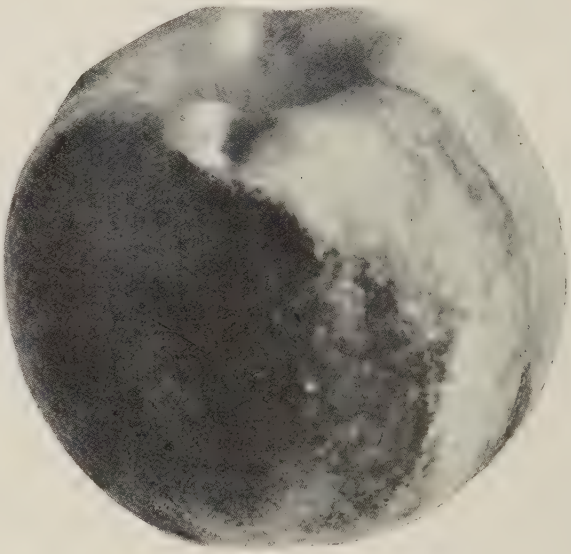
ST. JOHN (*Yellow St. John*).

The earliest really good peach for either home use or market. Its season is the end of August, just before the Early Crawford; and its fair size, its yellow flesh, attractive skin and good quality, make it one of the most satisfactory peaches for all purposes.

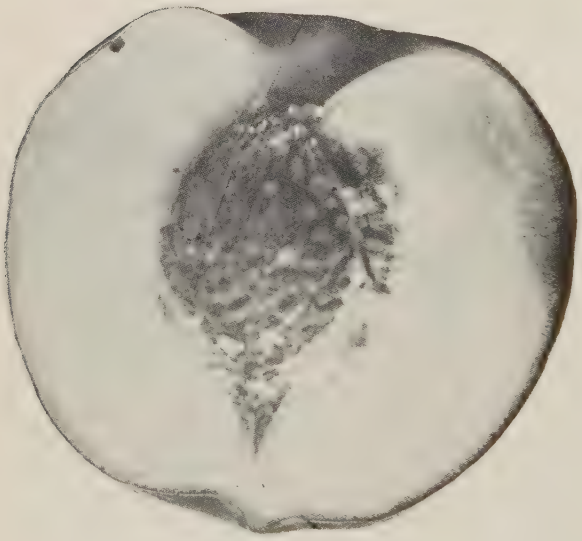
ORIGIN: North America.

TREE: vigorous and productive.

FRUIT: form, round; size, large; skin, yellow, with dark red cheek; suture, traceable on one side, sometimes by a red line; apex, a tiny point in a rather deep depression; free stone.



ST. JOHN.



SECTION OF ST. JOHN.

FLESH: color, yellow, tinted red at the stone; texture, tender and juicy; flavor, sweet, rich and agreeable.

QUALITY: dessert, very good and canning very good.

VALUE: the first good yellow-flesh peach of the season.

SEASON: late August.

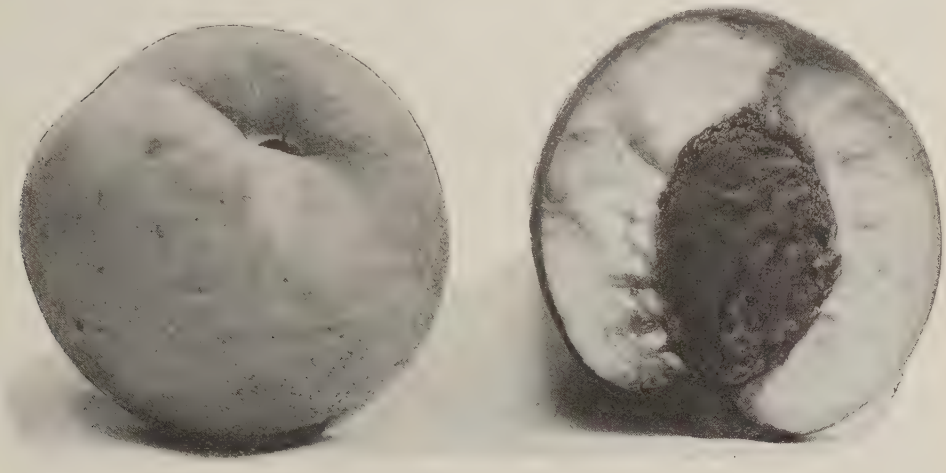
SNEED.

A promising early variety for home use and near markets.

ORIGIN: Tennessee, by Judge Sneed, of Memphis, about 1880, from a pit of the Chinese Cling.

TREE: vigorous, but slender in young growth; productive; an early bearer.

FRUIT: medium; form, roundish oval, slightly one-sided; skin light greenish white, with red cheek, and a short thick down; cavity, narrow and deep, with distinct suture, and a small pointed apex, in a slight depression.



SNEED.

FLESH: semi-cling; color, yellowish white at maturity; texture, tender, fine, very juicy; flavor, mild, vinous, pleasant.

QUALITY: dessert, good.

VALUE: home market, second class.

SEASON: late July to early August.

STEVENS (*Stephens Rareripe*).

A popular late white-flesh peach, and a good shipper.

STEVENS.

ORIGIN: New Jersey.

TREE: vigorous and productive.

FRUIT: size, above medium; form, roundish ovate; color, whitish ground with dark red cheek; cavity, narrow and deep; suture, traceable.

FLESH: whitish with red at pit; free; texture, tender, juicy; flavor, sprightly and agreeable.

QUALITY: dessert, good; cooking, good.

VALUE: market, first class.

SEASON: mid-October.

THURBER.

A magnificent white-flesh peach to fill in between Early Crawford and Elberta.

ORIGIN: seedling of Lee, raised by Dr. L. E. Berckmans, of Augusta, Georgia.

TREE: very vigorous; productive.

FRUIT: size, large; form, roundish, enlarged at centre along suture; color, creamy white, bright red cheek; cavity, large, deep; suture, marked; apex, small, pointed; bloom, white; skin thin.

FLESH: white, red at pit, free; texture, tender, juicy; flavor, sweet, vinous, excellent.

QUALITY: dessert, very good to best; cooking or canning, very good.

VALUE: home market, first class.

SEASON: mid-September.

TYHURST.

A very attractive golden-yellow peach; considered a profitable variety for the commercial orchard. After fruiting it several years at our Maplehurst station, we think its value has been somewhat over-estimated. It is not planted in Niagara Peninsula.

ORIGIN: a seedling raised by Mr. Tyhurst, of Leamington, Essex County. This gentleman was so pleased with the peach that he planted nearly his whole farm with trees grown from its pits, and made considerable money out of his venture.

TREE: moderately vigorous; quite productive; fruit is inclined to drop as soon as ripe.

FRUIT: size, medium; form, ovate; suture, distinct on one side, terminating in a small, black, sharp point; color, deep yellow, with tinge of red in the sun; skin separates easily from the flesh.

FLESH: free; color, pale yellow; texture, very tender, fine grained, melting, juicy; flavor, excellent.

QUALITY: dessert, very good to best; canning, very good.

VALUE: home market, first class; distant market, second class, because too tender.

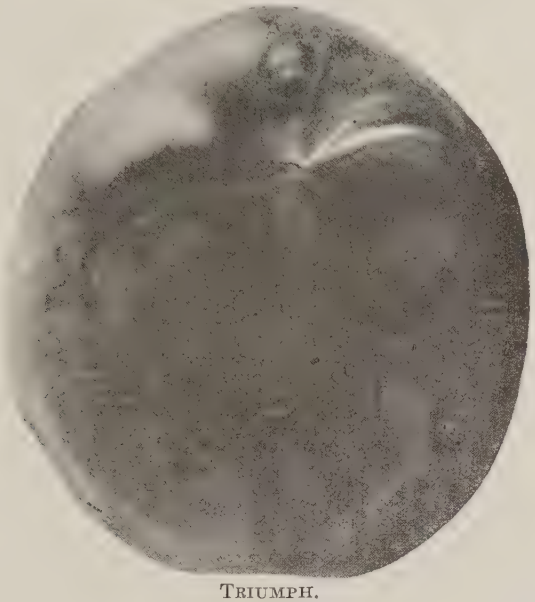
SEASON: mid-September.

TRIUMPH.

A valuable commercial variety, to follow the Alexander, but not very popular on account of its heavy coat of down, its dull color, and its susceptibility to rot, and should only be planted in earliest section.

ORIGIN: Georgia, seed of Alexander.

TREE: vigorous, hardy, very productive, subject to twig blight and leaf curl.



TRIUMPH.

FRUIT: medium size; form, roundish, somewhat shouldered and flattened; color, yellow ground nearly covered with red and markings of very dark red; cavity, deep; apex, small, in a decided depression; suture, distinct; pit, semi-cling.

FLESH: yellow; texture, fine, juicy; flavor, sweet, rich and excellent.

QUALITY: good.

VALUE: home market, second class except under special conditions.

SEASON: mid-August.

SECTION OF TRIUMPH.

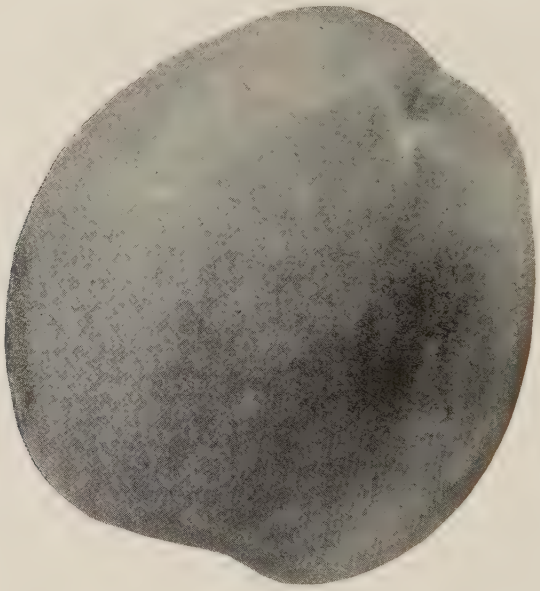
WHEATLAND.

A large and beautiful yellow-flesh peach to follow Early Crawford; a valuable variety for home use or market; not a long keeper.

ORIGIN: New York State.

TREE: vigorous.

FRUIT: size, large; form, roundish, slightly enlarged along the line of suture; color, yellow, well overspread with red, usually prettily dappled with red about the small pointed apex; cavity, broad and deep.



WHEATLAND.

FLESH: free; color, pale yellow tinted with red at the pit; texture, melting, tender, juicy; flavor, rich, sweet, delicious.

QUALITY: very good for dessert or cooking.

VALUE: market, first class.

SEASON: mid to late September

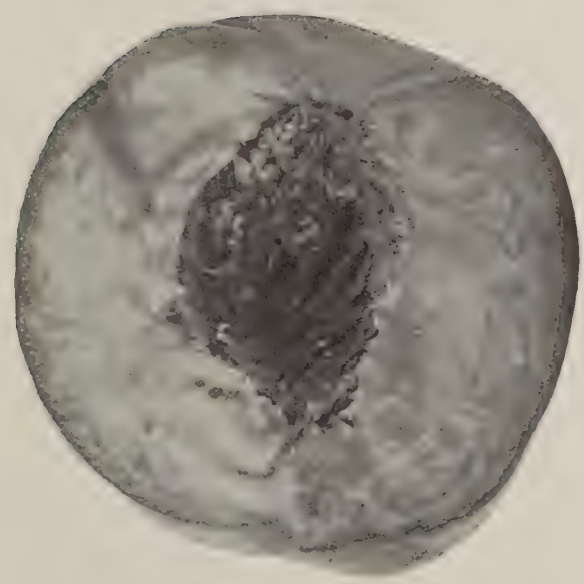
WILLETT.

An attractive and profitable late market peach, to come in between Elberta and Smock; later than Matthews' Beauty.

TREE: vigorous; spreading; productive.

FRUIT: medium to large in size; form, nearly round, and enlarged along one side of the suture; cavity, abrupt, medium; apex, distinct; color, yellow with mottling of deep red in the sun.

WILLETT.



SECTION OF WILLETT.

FLESH: free; greenish yellow with red tint at the pit; texture, rather firm, moderately juicy; flavor, moderately sweet, good.

QUALITY: dessert, good; cooking, very good.

VALUE: market, first class.

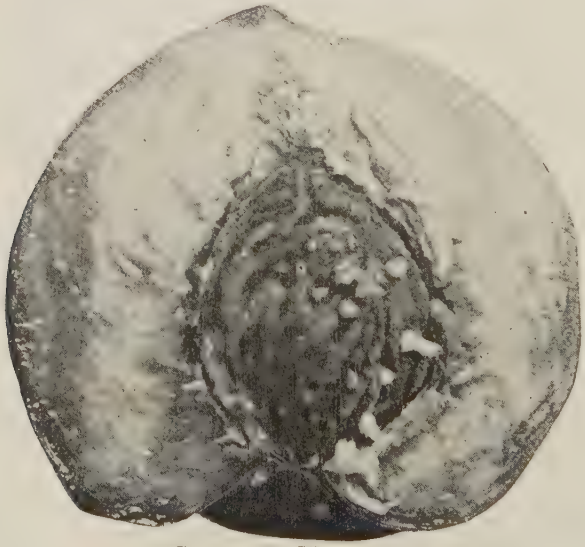
SEASON: early October.

WONDERFUL.

A new variety of great size and beauty.
ORIGIN: United States.
TREE: a vigorous grower, but lacking in productiveness.
FRUIT: large; form, roundish; cavity, narrow and deep; suture, traceable; apex a small point, sometimes depressed; color, yellow with bright red on sunny side.

WONDERFUL.

FLESH: light creamy yellow, red at pit; texture, tender, melting, juicy; flavor, sweet, vinous, pleasant; free.
QUALITY: dessert, good; canning, good.
VALUE: market, first class.
SEASON: mid-September.



SECTION OF WONDERFUL.

THE PEAR.

The pear succeeds over all the best apple districts of Ontario, but few good hardy varieties have yet been found, hence the commercial culture of the pear does not extend as far north as the apple. The principal pear orchards are found in southern Ontario. There are many good orchards, however, along Lake Ontario as far east as the Bay of Quinte and north to the Georgian Bay.

In eastern Ontario, only a few kinds succeed, and these are not planted on a commercial scale. These hardy varieties are grown to a limited extent for home use as far north as latitude 45 degrees and some of the Russian pears, though inferior in quality and very subject to blight, may be grown still further north.

The pear stands distant shipment well, if picked at the right time, and properly packed and handled in transit, and hence larger quantities are being sent to distant markets every year, and, as a rule, good prices are obtained for the fruit.

The general directions for the preparation of the land, soil and planting, as given for the apple, apply to the pear, with but slight alterations. While pears succeed in the same kind of soils as the apple, clay loams, if well drained, suit them best. Pear trees two years old are better than those three years old, as they are easier to transplant, since pear trees have not so good a root system as the apple. Standard trees should be set at least twenty feet apart each way. Pear trees are shaped and pruned much like the apple, although trees with a central leader are more easily obtained and are preferred. They may be headed nearer the ground than the apple, as they are of more upright habit. Many pears are now being grown on dwarf or quince stock. These have the advantage of being earlier than standard trees, and may be planted closer together, fourteen feet apart being a good distance. They do not live as long as standard trees. The dwarf trees in Ontario are almost always grown without a central leader, and branching near the ground. They require more careful pruning than standards. The fruit of some varieties is improved by growing on dwarf stocks, among those succeeding particularly well on this stock being Duchess, Louise, Diel, and Easter Beurre.

Pear trees are very much subject to blight, which, as yet, cannot be controlled by any practical means. It has been observed, however, that trees usually blight most when making strong, succulent growth, hence it is best not to encourage a strong growth. Some varieties are more subject to blight than others, and when planting, this should be taken into consideration. In planting a pear orchard, it is also desirable to mix the varieties, avoiding large blocks of any one kind, as better crops will thus be obtained, some varieties being almost sterile, when planted by themselves.

The picking of pears requires good judgment. If they are picked too early, the fruit will not get its best flavor, but, if picked too ripe, it will spoil before reaching the market. Pears, unlike most fruits, ripen well and develop a good flavor when picked while still green and hard, but, to obtain this flavor, the fruit should have reached its full size.

VARIETIES RECOMMENDED.

General List, Approved by the Board of Control.

Giffard, Clapp, Bartlett, Boussock, Flemish (hardy, subject to spot), Howell, Louise, Duchess, Bosc, Clairgeau, Anjou, Kieffer.

DISTRICT LISTS.

NIAGARA DISTRICT.

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment.)

ROBERT THOMPSON, St. Catharines.

Giffard, Clapp, Bartlett, Bosc, Duchess (dwarf), Anjou, Kieffer.

EGBERT M. SMITH.

Giffard, Bartlett, Howell, Louise, Flemish, Duchess (dwarf), Anjou, Kieffer.

BURLINGTON-OAKVILLE DISTRICT.

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto.)

A. W. PEART, Burlington.

Wilder, Clapp, Bartlett, Boussock, Louise, Duchess (dwarf), Anjou, Kieffer, Lawrence, Nelis.

W. F. W. FISHER, Burlington.

Lawson, Clapp, Bartlett, Duchess, Anjou, Nelis.

ESSEX PENINSULA.

(Including Essex, Kent, and Pelee Island.)

J. L. HILBORN, Leamington.

Bartlett, Anjou, Duchess.

J. ATKIN & SON, Leamington.

Bartlett, Kieffer, Duchess.

LAKE HURON DISTRICT.

(Including Counties of Huron and Bruce.)

D. F. HAMLINK, Goderich.

Clapp, Bartlett, Louise, Clairgeau, Anjou.

GEORGIAN BAY DISTRICT.

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay.)

J. G. MITCHELL, Clarksburg.

Clapp, Bartlett, Flemish, Duchess, Anjou, Clairgeau.

LAKE SIMCOE DISTRICT.

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario, bordering on Lake Simcoe.)

G. C. CASTON, Craighurst.

Clapp and Bartlett.

GUELPH DISTRICT.

(Including the high inland Counties of south-western Ontario, *i.e.*, Wellington, Waterloo, north-western section of Perth, south part of Grey, Dufferin, and north-west section of Peel and Halton.)

Prof. J. W. Crow, O.A.C., Guelph.

Clapp, Flemish, Seckel, Sheldon, Anjou.

LAKE ONTARIO DISTRICT.

(Including the southern portions of the Counties bordering on the Lake Ontario shore from Toronto to Trenton.)

W. H. Dempsey, Trenton.

Giffard, Clapp, Boussock, Hardy, Bosc, Clairgeau, Lawrence.

ST. LAWRENCE VALLEY DISTRICT.

(Including the Valley of the St. Lawrence River from Kingston to the eastern boundary of the Province.)

Harold Jones, Maitland.

Flemish (if grown in sod), Ritson (not so hardy in fruit bud as Flemish).

OTTAWA DISTRICT.

(Including the Ottawa Valley and the eastern portion of the Province, not elsewhere enumerated, south of latitude 46 deg.)

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Flemish in most favored parts.

DESCRIPTION OF VARIETIES.

ANSAULT.

Claimed to be a good general-purpose pear for home uses, but not as yet widely tested.

Origin: France.

Tree: An early and abundant bearer.

Fruit: size, medium; roundish oblate pyriform; skin, green, yellowing at maturity, mostly covered with russet; stem, ½ inch to 1 inch long, in a small irregular, often oblique, cavity; calyx, small, open in an abrupt, deep basin.

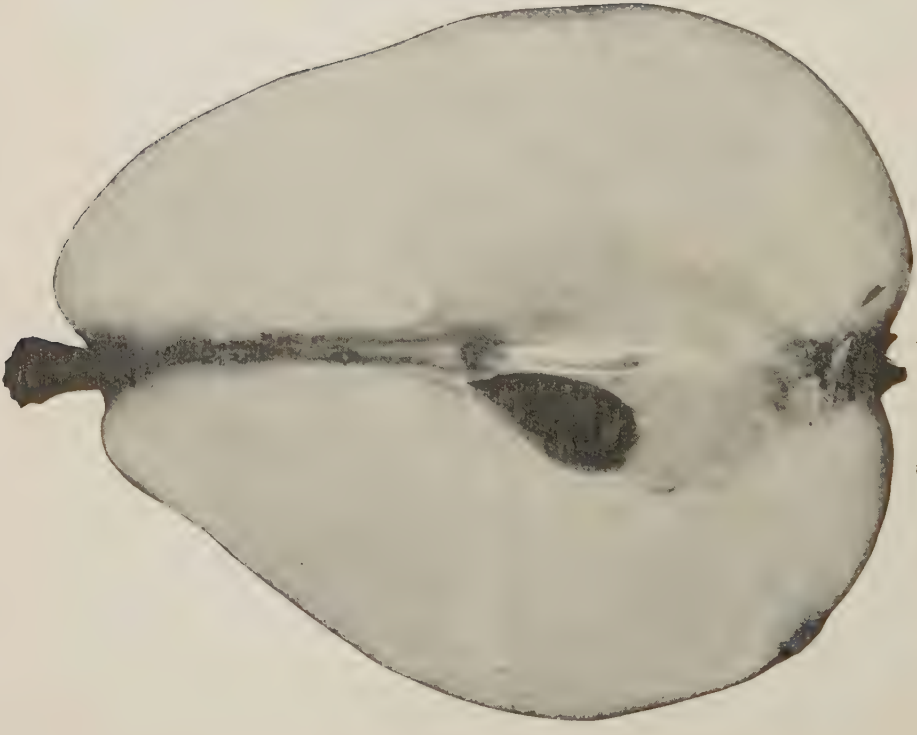
Flesh: color, creamy white; texture, tender, fine grained, buttery, juicy; flavor, agreeable, aromatic, very pleasant.

Quality: fair for all purposes.

Value: home market, second class; not grown to any extent.

Season: September.

ANJOU.



SECTION OF ANJOU.

ANJOU. (*Beurre d'Anjou.*)

A fine market pear, succeeding admirably on quince roots, but on pear roots the tree is not so productive, nor the fruit so large. Its fine size, and melting, buttery texture, make it a favorite market pear for the month of December, and past experience proves it a desirable variety to export to Great Britain.

ORIGIN: Louvain, Belgium, about 1823; named Ne Plus Meuris, after Father Meuris.

TREE: a vigorous, strong grower; productiveness, scarcely first rate, even on the quince, third rate on the pear.

FRUIT: large; form, obovate, blunt pyriform; skin, thick, yellow at maturity, with greenish patches and brown dots, brownish red on sunny side; stem, scarcely half an inch long, stout and fleshy; calyx, open, set in a shallow basin; core, small; seeds, few, if any.

FLESH: white; texture, fine grained, buttery, melting; flavor, pleasant, perfumed, not very sweet.

QUALITY: table or cooking, good.

VALUE: home market, first class; foreign market, first class.

SEASON: November.

ADAPTATION: fairly general in Ontario.

BAUDRY.

A promising new winter pear, which has been fruiting at our Maplehurst station as a dwarf.

FRUIT: size, large; form, oblong, pyriform; color, yellowish green, with russet patches.

FLESH: color, yellow; texture, tender, but gritty at the core; flavor, very good.

QUALITY: very good for dessert and cooking.

VALUE: second class for market.

SEASON: late winter.

BARTLETT.

BARTLETT. (*Williams.*)

No pear of the same season equals in popularity the Bartlett, for either dessert or canning. Indeed, while it is in the market, no other pear compares with it in price or brings as much profit to the grower. Of late, large orchards of this one variety have been planted in Canada, and there is a growing demand for it in the North-west Provinces. With trustworthy cold storage, it may be exported to Great Britain with profit.

ORIGIN: Berkshire, England, 1770, propagated by Mr. Williams, near London. Introduced into America and disseminated by Enoch Bartlett, of Boston.

TREE: healthy, vigorous, half-hardy, overcomes blight better than most varieties, very productive.

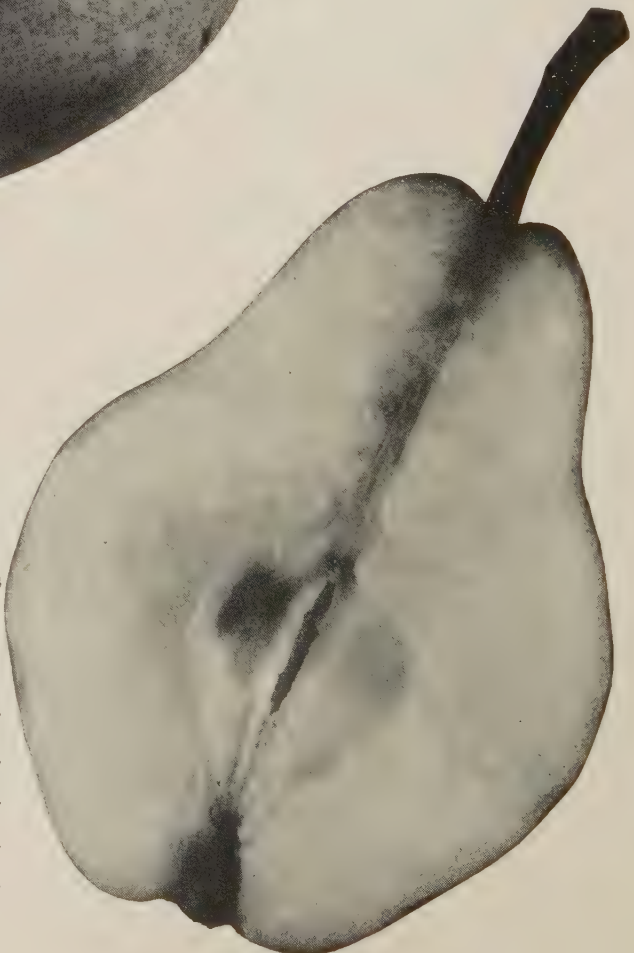
FRUIT: large, oblong, obtuse, pyriform; color, yellow, with very numerous minute brown dots, often russetted at the apex; stem, 1¼ inches long, in a small, irregular cavity; calyx, open in an irregular basin.

FLESH: creamy white, fine grained, very buttery and juicy; flavor, sweet, perfumed, vinous.

QUALITY: dessert, the most profitable variety.

SEASON: early to mid September.

ADAPTATION: succeeds admirably in southern Ontario, and as far north as the Bay of Quinte.



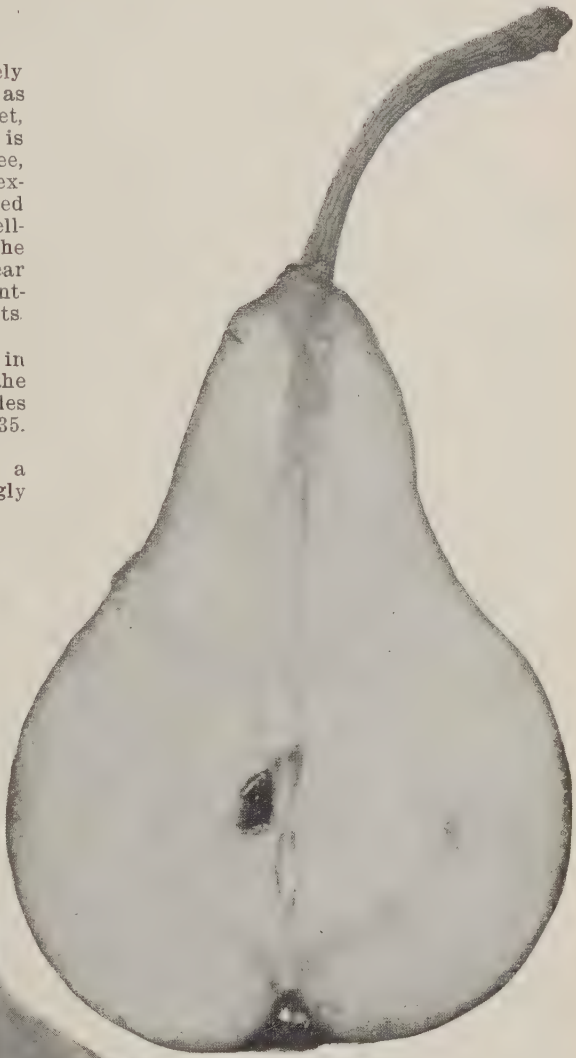
SECTION OF BARTLETT.

BOSC. (*Beurre Bosc, Downing.*)

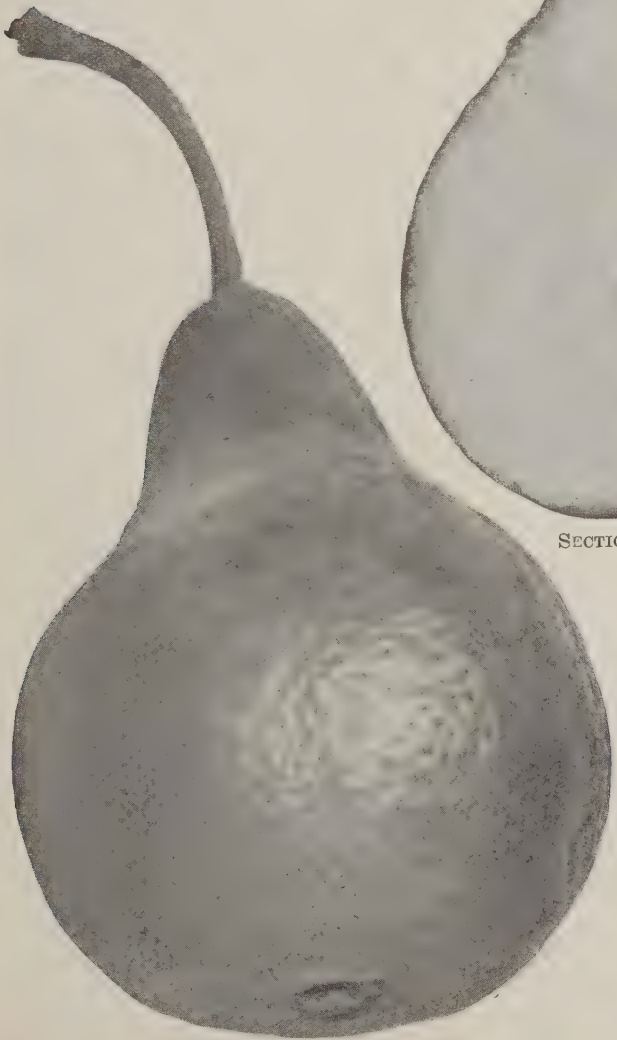
The Bosc pear is not as widely known among cultivators in Canada as its merits deserve. Though a russet, it yellows as it ripens; the pear is large in size, and uniform on the tree, as if thinned purposely; and the texture is such that it can be exported in fine condition. In quality, a well-grown Bosc is first class. On the whole, we would place this pear among the valuable kinds for planting for export to the foreign markets.

ORIGIN: a chance seedling, found in France, and dedicated to M. Bosc, the eminent director of the Jardin des Plantes at Paris, about the year 1835.

TREE: a vigorous grower, and a regular bearer, carrying its fruit singly and not in clusters, as is the habit of some varieties.



SECTION OF BOSC.



Bosc.

FRUIT: large, elongated acute pyriform, covered with slight indentations; color, greenish, yellow ground, nearly covered with cinnamon russett; stalk, 1½ to 2 inches long, stout and usually curved, inserted without a cavity; calyx, open in a shallow basin.

FLESH: white; texture, fine, breaking, juicy; flavor, sweet, rich, delicious.

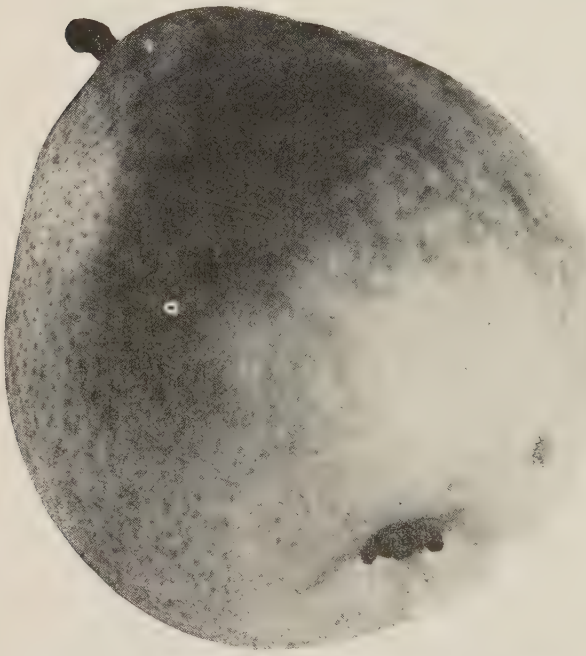
QUALITY: first class for dessert.

VALUE: first class for either home or foreign markets.

SEASON: October.

ADAPTATION: southern Ontario and as far north as Bay of Quinte.

BOUSSOCK. (*Doyenne Boussock.*)



BOUSSOCK.

Described by Downing as a profitable market sort, but our experience in Canada would lead us to give it a second place, when compared with the Bartlett or the Anjou. The tree is a good grower and productive, and the fruit is uniformly large, but it is second class in quality, unless eaten just at the proper stage of ripeness, and the tree is inclined to drop its fruit too soon.

ORIGIN: Belgium.

TREE: succeeds best as a standard; vigorous, hardy and very productive.

FRUIT: large; form, roundish, obovate; skin, yellow, with dull red cheek, and numerous rough dots; stalk, fleshy, stout, 1 to 1¼ inches in length, in a round cavity; calyx, open, in a shallow russeted depression.

FLESH: white; texture, tender, juicy, if gathered at the right season; flavor, sweet and agreeable.

QUALITY: dessert, very good.

VALUE: near markets, first class.

SEASON: September.

SECTION OF BOUSSOCK.

BRANDYWINE.

A good general dessert pear, but not much grown for market in Ontario, being so nearly of the same season as Bartlett.

ORIGIN: chance seedling found on the banks of the Brandywine River, Delaware County, Pennsylvania. The original tree fruited for the first time in 1820.

TREE: vigorous; upright; fairly productive; succeeds best on the quince.

FRUIT: size, medium; form, conic pyriform; color of skin, greenish-yellow, with blush on the sunny side, and dotted and sprinkled with russet; stem, ¾ to 1½ inches long, fleshy at insertion which is surrounded by folds; calyx, open in a smooth, shallow basin.

FLESH: color, white; texture, tender, melting, very juicy; flavor, sweet, vinous, aromatic.

QUALITY: dessert, very good.

VALUE: market, second class.

SEASON: early September.

BUFFUM.

Formerly this pear was much in favor as a profitable orchard variety, because of its productiveness and the wonderful hardiness and vitality of the tree, but of late years it is much less in favor with pear growers on account of its small size and ordinary quality. Some trees of this variety at Maplehurst, forty years planted, have never shown the slightest tendency to blight, and have attained a great height, more resembling Lombardy poplars than pear trees.

ORIGIN: Rhode Island.

TREE: remarkable for its vigorous, symmetrical, erect habit of growth; it is regularly and fairly productive, but, unless gathered early, the fruit drops badly; not subject to blight.

FRUIT: medium size, obovate, slight oblong; skin, rough, yellow at maturity, with bright or dull red or russet on sunny side; dots, small, brown; stalk, ¾ inch long in a small cavity; segments of calyx small, in a small plaited basin.

FLESH: color, yellowish-white; texture, crisp, not fine, not juicy; flavor, sweet and pleasant.

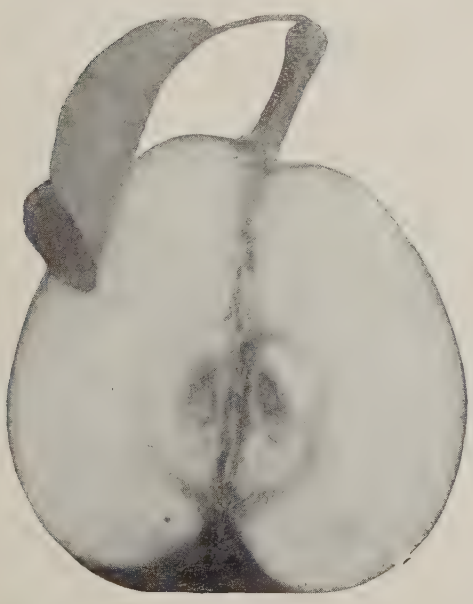
QUALITY: dessert, fair; cooking, fair.

VALUE: home and distant markets, second class.

SEASON: September.

ADAPTATION: stated to be hardy in Bruce and Huron Counties; slightly tender in North Ontario County.

CHAMBERS.



CHAMBERS.

The Chambers pear has been grown at Maplehurst for about ten years on dwarf stock, and commends itself as a fine market variety the beginning of August, for it is of a good quality, fairly large, and the tree is productive.

ORIGIN: brought from Maryland to Kentucky by Judge Wm. Chambers.

TREE: moderately vigorous, very hardy, productive.

FRUIT: of medium size; form, obtuse, obovate, pyriform; color, pea green, turning yellow, when fully mature, with numerous brown and green dots, and reddish-brown cheek on sunny side; stalk, stout, 1 inch long, set on an angle in a flat cavity, often one shoulder prominent; calyx, small, half-open; seeds, few.

FLESH: white; texture, tender, fairly juicy; flavor, aromatic, sweet and pleasant.

QUALITY: good.

VALUE: for near market, first class.

SEASON: early August.

CLAIRGEAU.

As a commercial pear, especially for a distant market, we know of no variety of the same season that is superior to this variety. Its large size, and the beautiful cheek which it takes on during the month of October, its excellent shipping and keeping qualities, all these combine to make it a profitable variety, and one that is easily grown, either as dwarf or standard. The quality is variable, according to the conditions of growth; in France, it is counted very good; in England, poor; with us, when well ripened, it is only good.

ORIGIN: Nantes, in France, with a gardener named Clairgeau, about 1838.

TREE: first class in vigor, hardiness and productiveness; wood, stout and upright in habit of growth; branches, numerous, grown as a dwarf can be trained to make a fine pyramid, but succeeds best as a standard; an early bearer.

FRUIT: large, one-sided, pyriform; skin, green, turning pale yellow at maturity, almost overspread with splashings and dots of russet, which completely cover it about the stock and the calyx; orange red on sunny side; stalk, ¾ inch long, stout, fleshy at the base, usually set at an angle with the axis; calyx, small, open, in a shallow, furrowed basin.

FLESH: white, coarse grained, juicy, with sweet, aromatic and vinous flavor.

VALUE: home or foreign market, first class.

QUALITY: cooking, good; dessert, good.

SEASON: October to November.

ADAPTATION: succeeds admirably as far north as Thornbury; and east as far as Prescott.

CLAPP. (*Clapp's Favorite.*)

The Clapp is a beautiful pear where well grown and well colored. It is also of good quality, so that it is well fitted to be a profitable market pear; with one fault, that it soon passes out of prime condition, and, if allowed to ripen on the trees, it will rot at the core. On this account the fruit must be gathered as soon as full grown and well colored, and shipped while firm.

ORIGIN: raised by Thaddeus Clapp, of Dorchester, Mass., U.S.

TREE: upright, vigorous grower, somewhat spreading, forming a symmetrical top; bears fruit of uniformly large size, pretty evenly distributed; productive; succeeds well as a dwarf on rich soil; very susceptible to blight.

FRUIT: very large, pyriform, obovate, usually symmetrical, sometimes with unequal sides; skin, pale green, changing to yellowish green, with dull red on sunny side, which becomes bright crimson at maturity, somewhat resembling the coloring of the well-known Louise; stalk, stout and fleshy, obliquely inserted without cavity; calyx, large, half open, in shallow basin.

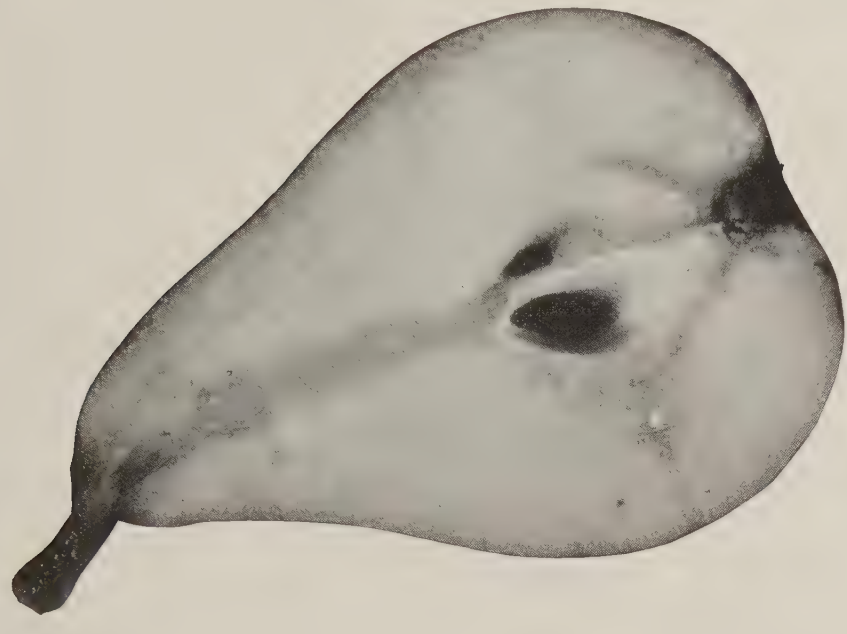
FLESH: creamy white; texture, fine, tender, juicy, with very agreeable flavor; good to very good.

QUALITY: good for dessert and cooking.

VALUE: the most valuable of the early varieties of pears.

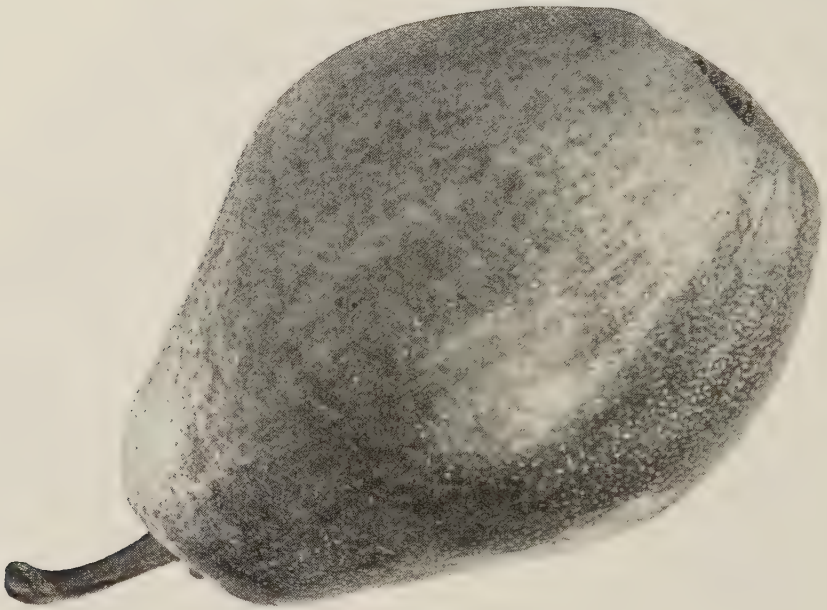
SEASON: August and September.

ADAPTATION: One of the hardiest pears.

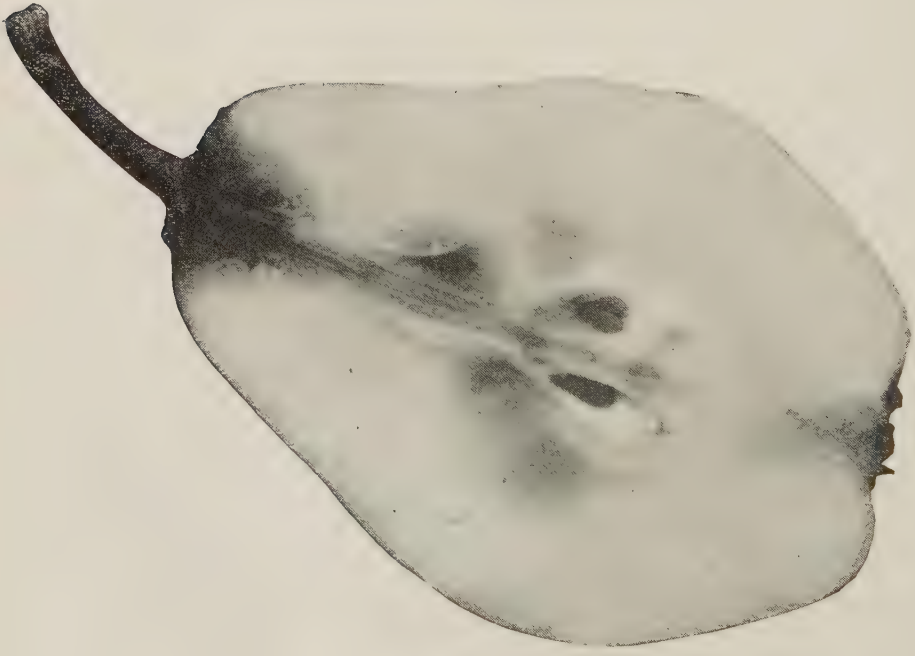


SECTION OF CLAIRGEAU.

CLAIRGEAU.



CLAPP.



SECTION OF CLAPP.

COMICE. (*Doyenne de Comice.*)

"Tree, large, upright. Fruit, large, roundish pyriform, or broad obtuse pyriform, cavity, shallow, often russeted; stalk, short, stout, inclined; basin, large, deep, uneven; calyx, small, open; color, greenish yellow, becoming clear yellow at maturity, often lightly shaded with crimson and fawn in the sun, and with light nettings and patches of russet and numerous russet dots; flesh, white, juicy, melting, a little buttery with a fine texture, and sweet, rich, sprightly and aromatic flavor; quality, good; season, October to November; quite productive." (*Report, Mich. Exp. Sta.*)

DEARBORN. (*Dearborn's Seedling.*)

Previous to the introduction of such choice early varieties as Chambers, Wilder, Giffard and Clapp, the Dearborn was highly commended. Downing calls it, "a very admirable early pear of first quality, succeeding Bloodgood, and preceding Bartlett;" but it is no longer to be commended for planting in the commercial orchard because of its small size. It is now considered only valuable in the garden of the amateur.

ORIGIN: at Boston, Mass., in 1818, by the Hon. H. G. S. Dearborn.

TREE: of moderate vigour; not subject to blight; very productive.

FRUIT: size, small, roundish obovate; skin, clear yellow, with small grey dots, smooth; stem, 1 to 1¼ inches long, inserted with little or no cavity; calyx, open in a shallow basin.

FLESH: creamy white; texture, tender, buttery, juicy; flavor, agreeable.

QUALITY: dessert, fair; cooking, good.

VALUE: market, third class.

SEASON: mid to end of August.

DEMPSEY.

The Dempsey was originated near Trenton, in Prince Edward County, by Mr. P. C. Dempsey, the late well-known Director of our Association for that district. It was produced from a seed of a Bartlett, fertilized with Duchess d'Angouleme. The fruit is firm

TREE: vigorous and productive.

FRUIT: large, oblong, obovate, pyriform; skin, smooth, yellowish-green, with brownish-red cheek in sun; stem, about 1 inch long, set in a fleshy base, and with almost no cavity; calyx, nearly closed in a moderately deep, uneven basin, core, small.

FLESH: white, fine grained, tender, almost melting, with sweet, delicious flavor.

SEASON: late October to November.

DIEL. (*Beurre Diel.*)

A pear of ordinary appearance as grown in Southern Ontario, but of such size and excellent quality that it deserves a place in every collection, whether for home use or market.

ORIGIN: a chance seedling near Brussels, Belgium, named in honor of Dr. Diel, a German pomologist.

TREE: very vigorous, hardy and productive.

FRUIT: large to very large; obovate; skin, pale green, turning yellow at maturity, with numerous large brown dots and patches of russet; stem, curved, stout, from 1 to 1¼ inches long, set in an open, uneven cavity; calyx, open, in a basin of moderate depth and not very regular.

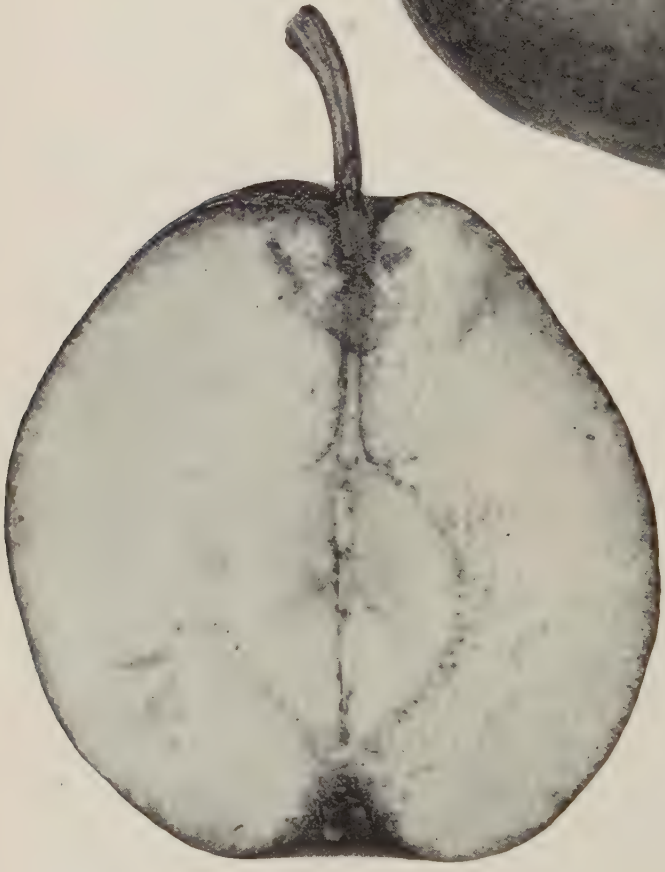
DIEL.

FLESH: cream color; texture, moderately fine, except at the core, juicy, buttery; flavor, aromatic, sweet and when well grown and well ripened, very delicious.

QUALITY: dessert, very good.

VALUE: home market, second class, because lacking in color; foreign market, possibly first class, because it carries well and has fine flavor, but not yet tested in this respect.

SEASON: November, just preceding the Lawrence.

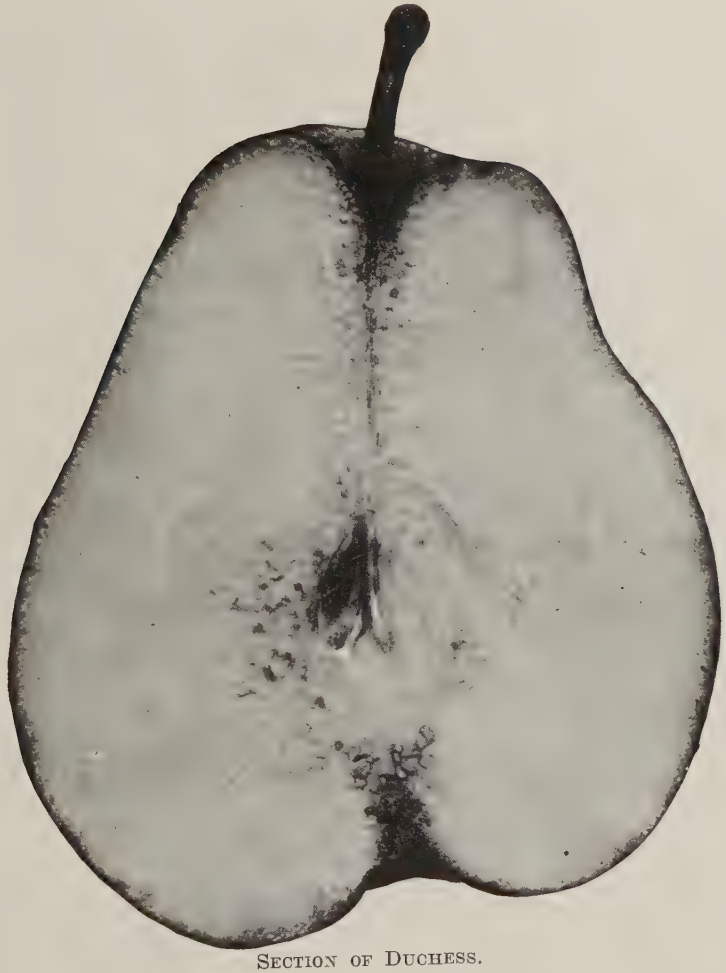


SECTION OF DIEL.

DROUARD. (*President Drouard.*)

"Large, roundish ovate, obtuse, rather irregular; color, yellow, with nettings and washings of russet; stalk, quite stout, inserted in a deep, narrow, irregular cavity; flesh, creamy white, tender, buttery, sweet, perfumed; good. An autumn variety much liked in Michigan and east of the lakes. Europe." (*American Horticultural Manual.*)

DUCHESS. (*Duchess d'Angouleme.*)



SECTION OF DUCHESS.

For many years this pear has been counted among the best and most profitable varieties in Ontario, especially when grown on quince stock, and, in consequence, has been largely planted. Prime samples are excellent stock for export, carried in cold storage. The fruit is often knotty from curculio stings.

ORIGIN: Angers, France, in 1812, a chance seedling. In 1820, Andusson, the propagator, sent a basket of the fruit to the Duchess d'Angoulême, who authorized him to bestow her title upon the pear as its name.

TREE: a strong grower, succeeds best on the quince; variable in productiveness: not subject to blight.

FRUIT: exceedingly variable in size, sometimes weighing a pound and a quarter; form, obovate, large at the base; surface, uneven, sometimes knobby; skin, light green, patched with russet, and numerous grey dots; stalk, stout, curved, 1 inch long, often swollen at point of attachment, deep set in an irregular cavity; calyx, small, closed, in an uneven, often russeted basin.

FLESH: white; texture, fine, when well grown, but often coarse-grained, melting, juicy and, when properly matured, of a sweet and very good flavor.

DUCHESS.

QUALITY: dessert, very good; cooking, good.

VALUE: first class for either home or foreign market. One of the best commercial pears as a dwarf.

SEASON: October and November.

ADAPTATION: hardy in southern Ontario, but only half hardy in Grey, Bruce and York.

EASTER BEURRE.

Among the desirable pears to grow for export we must not overlook the Easter Beurre, which, though green and unattractive in appearance at time of harvesting, keeps well through the winter, is an excellent shipper, and is very good in quality. A warm climate and favorable soil seem to be necessary to its best development, and, accordingly, we find it planted for commercial purposes in the Californian pear orchards. On deep, rich sandy loam, in the southern parts of our Province, it succeeds well, either as a dwarf, or as a standard tree.

Although some writers have claimed that this pear originated in France, because some old trees were found near Laval, yet the majority agree that the variety originated in Belgium, at the old University town of Louvain. Van Mons, in his Album de Pomologie, in 1847, says, "This variety was found in the ancient gardens of Capucins, at Louvain, where the original tree still stood in the year 1825, under the name of Pastorale de Louvain."

In the old countries, much confusion has existed regarding the names of pears, and subsequently much difficulty exists in the identification of varieties; this pear, for example, is given no less than twenty-four different names in LeRoy's Dictionnaire de Pomologie, as, for example, Doyenne de Printemps, Canning, Beurre d'Hiver, etc., the last being adopted by LeRoy; while Hogg, of England, and Downing, of America, both adopt the name so well known to us, Easter Beurre.

TREE: fairly vigorous, upright and productive, and may be grown either as a dwarf or as a standard tree; if, as a standard, it needs good, rich soil and a warm climate for the best success. In Great Britain, it does not seem to succeed so well as in Canada, for Hogg says it frequently happens that this delicious pear is of an indifferent and insipid flavor, which is caused by the unfavorable soil; and Blackmore, of Teddington, says, "It cracks in spots and is seldom very good." Our experience with it, as grown on a dwarf tree, is favorable.

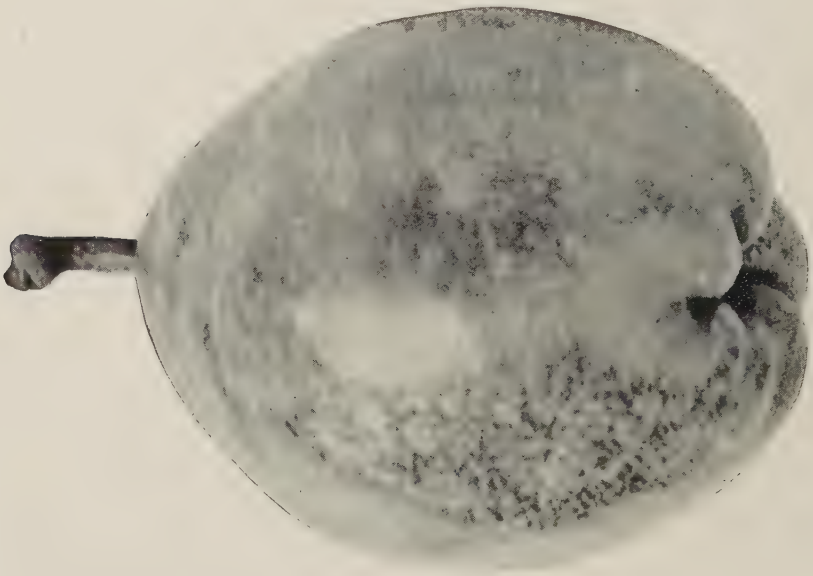
FRUIT: above medium size, irregular obovate; skin, pale green at harvesting time, yellowing somewhat toward maturity, with numerous russet dots, russet patches around the stem and calyx, and often a brownish cheek; stem, about 1 inch long, stout, swollen at the base, set in a narrow, deep cavity; calyx, small, closed, set in a much plaited basin of moderate depth.

FLESH: white, fine in texture, melting and juicy; flavor, sweet, rich and agreeable.

QUALITY: dessert, good.

VALUE: export, first class.

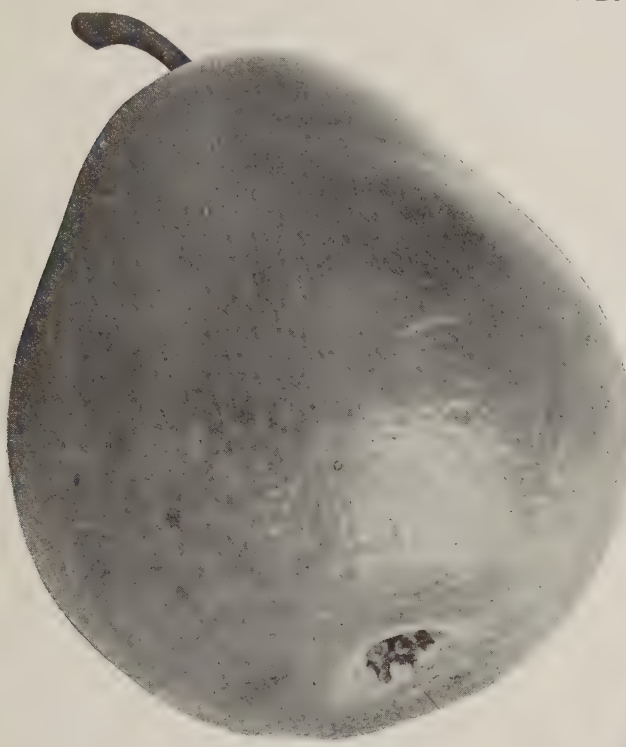
SEASON: mid to late winter.



EASTER BEURRE.

SECTION OF EASTER BEURRE.

FLEMISH BEAUTY. (*Feodant des Bois of LeRoy.*)



FLEMISH BEAUTY.

A variety that has been a great favorite in Europe ever since the beginning of the eighteenth century, as is evidenced by the thirty-five synonyms which have been given it, as shown in "Dictionnaire de Pomologie," by Andre LeRoy. This and the Bartlett were among the first imported varieties of pears planted in Ontario, and it has been widely tested. In the northern sections, where it succeeds, it is a most popular variety, but in southern Ontario it has been of late so subject to scab and cracking of the fruit, that it has lost favor with growers, notwithstanding its excellent quality.

ORIGIN: discovered by Van Mons about the year 1810 in Eastern Flanders, and distributed among his friends.

TREE: first class in hardiness; almost first in productiveness; an early bearer.

FRUIT: large; form, obovate, obtuse, pyriform; skin, light yellow, when ripe, with frequent patches of brownish red on sunny side, with scattered minute dots; stalk, 1 to 1½ inches long, set in a narrow, deep cavity; calyx, open, segments short, in a small round basin.

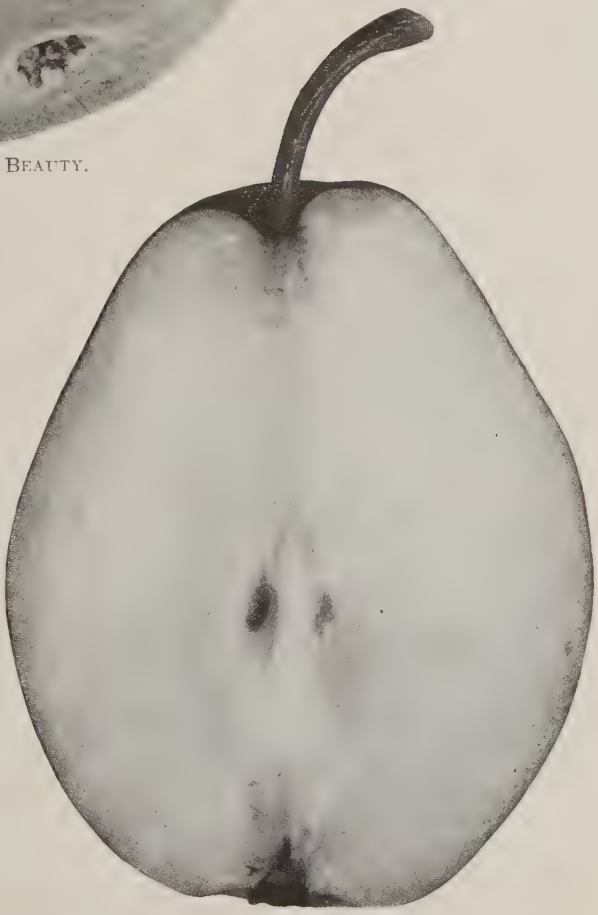
FLESH: creamy white, melting, buttery, juicy; flavor, rich. sugary, delicious.

QUALITY: first class.

VALUE: first class where well grown.

SEASON: mid to late September; should be gathered before quite ripe or it will drop and waste.

ADAPTATION: quite general: probably the hardiest good pear.



SECTION OF FLEMISH BEAUTY.

GIFFARD. (*Beurre Giffard.*)

A very desirable commercial pear for the home market.

ORIGIN: a chance seedling about 1840, in the garden of M. Giffard, Angers, France.

TREE: fairly vigorous; a straggling grower; healthy; fairly productive.

FRUIT: size, medium to large; form, pyriform conical; color, light green, with red dots and marbling of red on the sunny side; stem, 1 inch long, stout, swollen at the base, set obliquely; calyx, half closed, in a small, shallow basin.

GIFFARD.

SECTION OF GIFFARD.

FLESH: color, white; texture, melting, juicy; flavor, vinous, perfumed.

QUALITY: dessert, very good; cooking, best.

VALUE: first class for home market. One of the most profitable of the early pears.

SEASON: early to mid August.

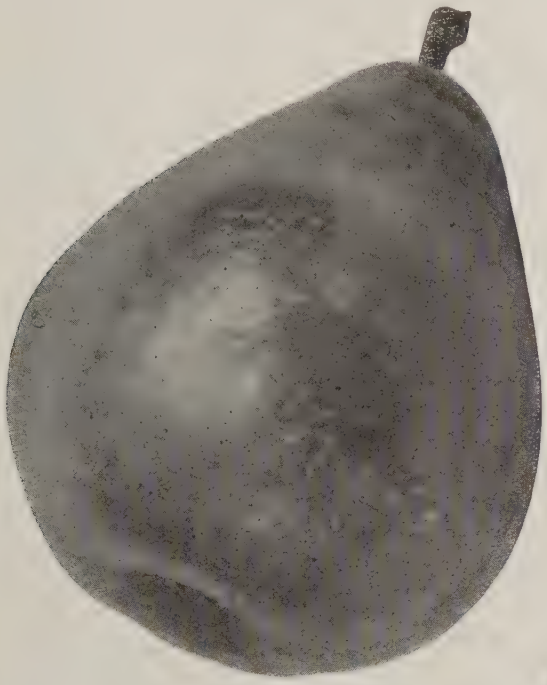
GOODALE.

A very good late fall pear; promising as a market variety.

ORIGIN: seedling raised by F. Goodale, Saco, Maine.

TREE: very vigorous and hardy and uniformly productive.

FRUIT: large, obovate obtuse pyriform; color, green, yellowing at maturity, with crimson cheek, some russet patches, and some small brown dots; stem, about 5/8 of an inch long, set in an inclined cavity; calyx, small, closed, in a small, rather deep, basin.



GOODALE.

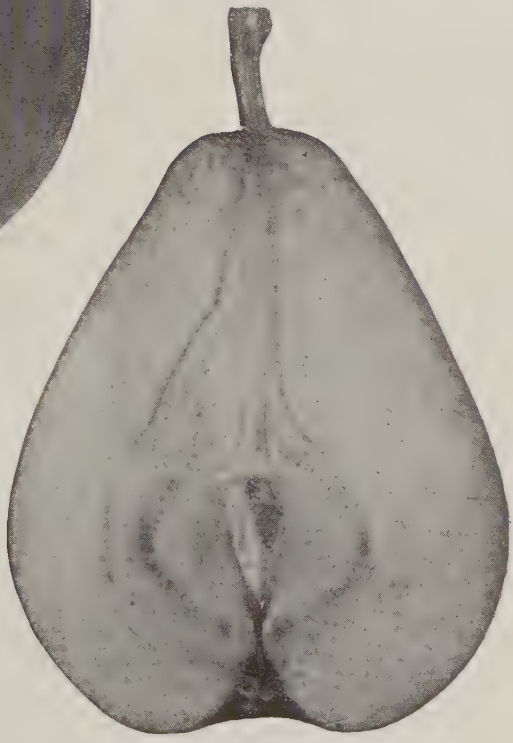
FLESH: color, white; texture, fine, juicy, granular at core; flavor, sweet, pleasant, perfumed.

QUALITY: dessert, fair.

VALUE: market, first class.

SEASON: October.

ADAPTATION: succeeds as far east as Bay of Quinte District.



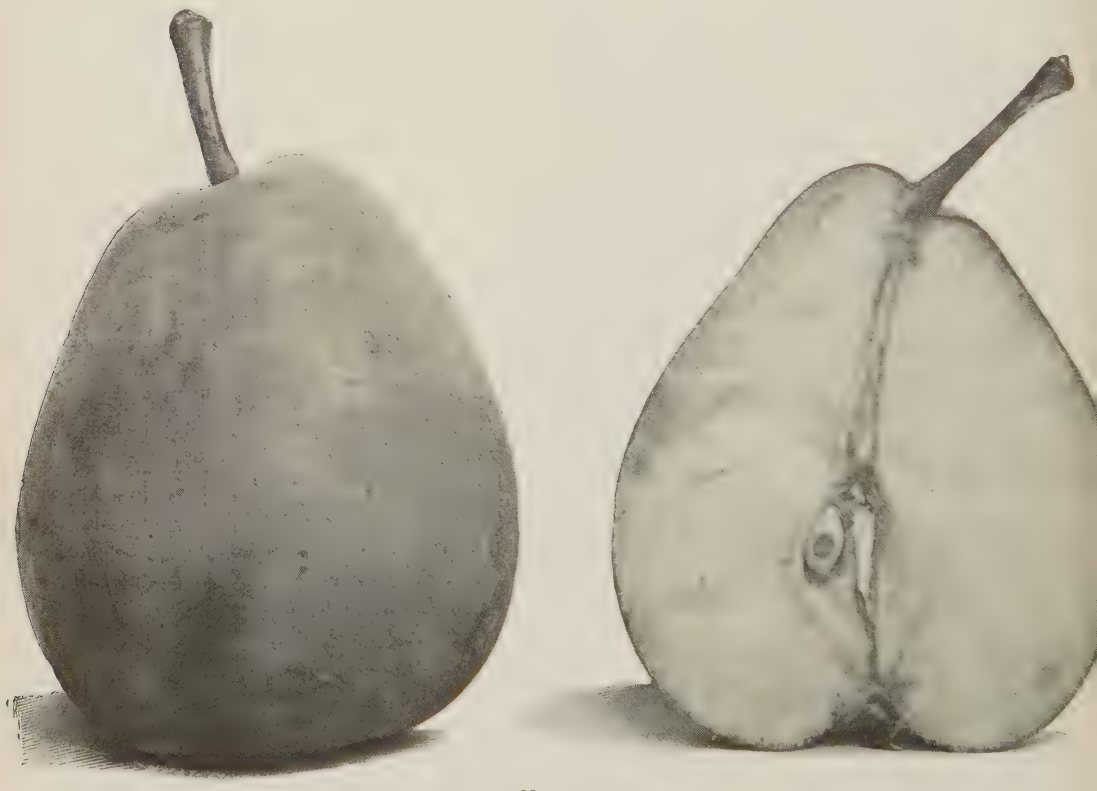
SECTION OF GOODALE.

HARDY. (*Beurre Hardy.*)

A good variety for the month of October, for both home use and market.

ORIGIN: Boulogne, France, dedicated to M. Hardy, director of the gardens at Luxembourg.

TREE: fairly vigorous and productive, and forms a fine symmetrical tree, especially when grown on the quince. The fruit is uniform in size and the skin is a bright, clear russet.



HARDY.

FRUIT: medium size, form, obovate, obtuse pyriform, of smooth, regular outline; skin, yellowish green, with numerous russet dots and covered with light brown russet, especially at the ends; stem, about 1 inch in length, stout, with fold at the base, and inserted obliquely in a small depression; calyx, large, open, in a shallow basin; flesh, white, fine grained, buttery, juicy, with rich aromatic flavor.

QUALITY: dessert, very good; cooking, good.

VALUE: home market, first class.

SEASON: October.

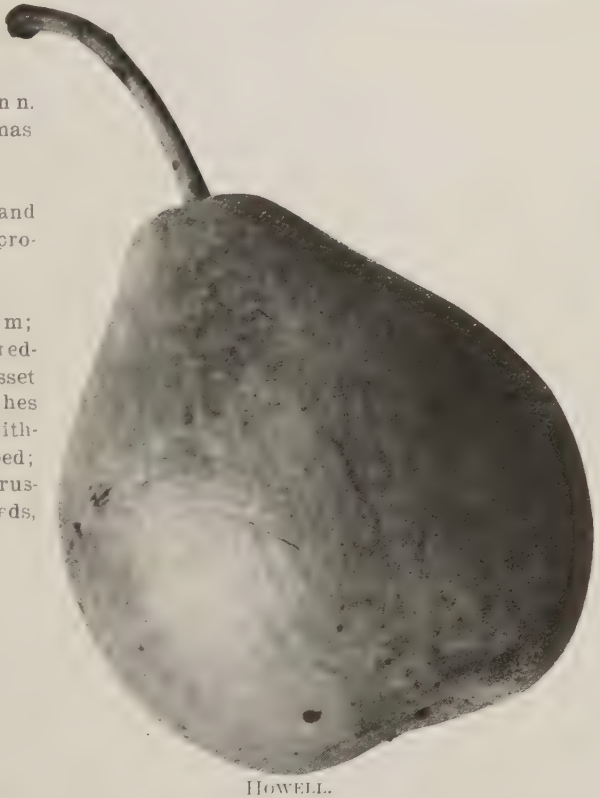
HOWELL.

A good export pear for southern Ontario. Its vigor of tree, regularity of bearing, clear skin, and good size and quality make it a desirable variety for the commercial orchard.

ORIGIN: New Haven, Conn. Named after the originator, Thomas Howell.

TREE: upright, healthy and vigorous, an early bearer, productive.

FRUIT: large, obovate pyriform; skin, yellowish green, waxen reddish dots on sunny side, russet dots in shade; stem, 1¾ inches long, set on an acute base, without cavity, sometimes lipped; calyx, partly open in a deep russeted basin; core, small; seeds, few, small.



HOWELL.

SECTION OF HOWELL.

FLESH: creamy white juicy, melting, granular near the core; flavor, agreeable, vinous; a little tart.

VALUE: first class for all markets.

SEASON: mid September to mid October.

HOOSIC.

This promises to be an excellent commercial variety, with one fault, viz., its short season.

ORIGIN: seedling from Hacon's Incomparable, by Asahel Foote, of Williamstown, Mass.

TREE: on quince stock, healthy, vigorous and productive.

FRUIT: size, large to very large; form, obtuse pyriform, somewhat one-sided; skin, yellow, with light red in sun, and with russet dots; stem, 1¼ inches long, stout, curved, set in a small irregular cavity; calyx, small, open, set in a broad, uneven basin.

FLESH: white; texture, tender, fine and moderately juicy; flavor, rich, perfumed.

QUALITY: good for all purposes.

VALUE: first class for near market.

Grown at Maplehurst, as a dwarf, this pear has given the greatest satisfaction; and, only that its season is rather short, it would be commended as an export variety.

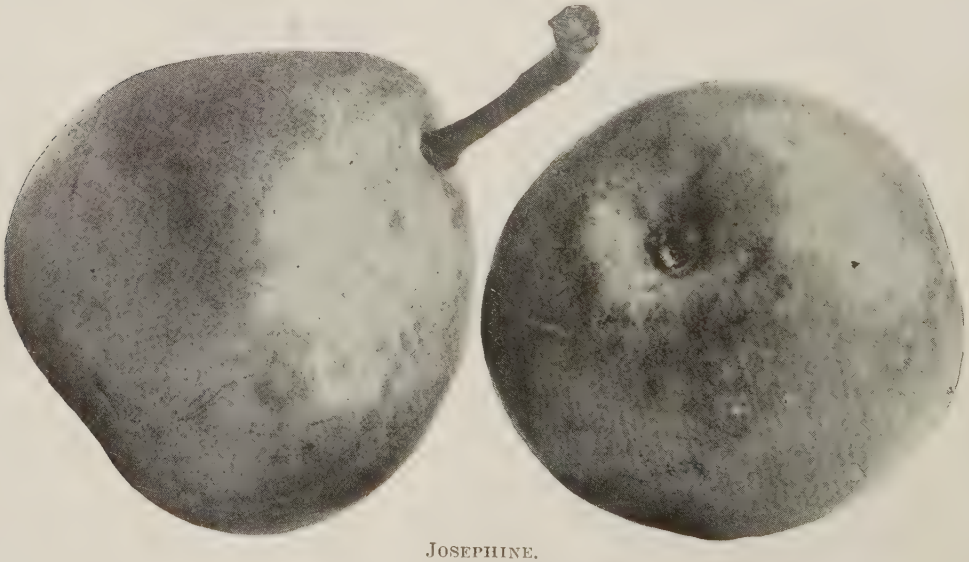
SEASON: late September.

JOSEPHINE. (*Josephine de Malines.*)

An excellent winter pear.

ORIGIN: Belgium.

TREE: succeeds well on the quince stock; productive.



JOSEPHINE.

FRUIT: size, medium, oblate, conical; color, yellowish, with small dots; stem, often two inches long in a slight cavity; basin, large.

FLESH: color, yellowish white; texture, buttery; flavor, rich and peculiar.

QUALITY: dessert, very good.

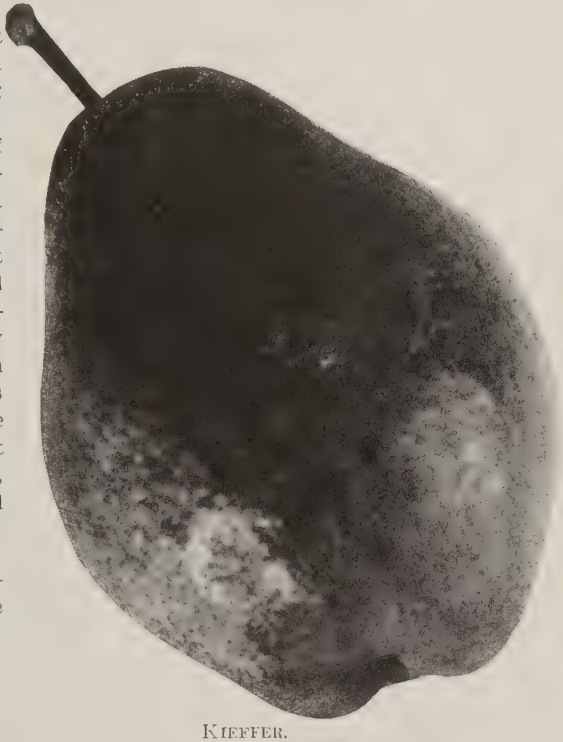
VALUE: market, second class.

SEASON: mid winter.

KIEFFER.

There is perhaps no pear about which a greater diversity of opinion exists; some fruit men condemning it because of its lack of quality, and others insisting that its beauty of appearance, its enormous productiveness, and its wonderful health and vigor of tree make it a profitable market variety, and that when properly grown and ripened it is quite a desirable kind, especially for cooking. Certainly the tree surpasses every variety in our collection for productiveness and vigor of growth; while the fruit is always uniformly perfect in form, free from blemishes, and, when the tree is cultivated and manured, large in size.

ORIGIN: by Peter Kieffer, Roxbury, Pa., a seedling of Chinese Sand pear.



KIEFFER.

TREE: wonderfully vigorous and healthy; an early and extraordinary bearer.

FRUIT: medium to large; form, ovate, tapering at both ends, widest at middle, and narrowest towards stem; skin, light golden yellow, with bright cheek, and very numerous brown russet dots; stalk, one inch long, fairly stout, in a one-sided cavity; calyx, half open, in a medium sized irregular basin.

FLESH: yellowish white; texture, half tender, half melting, not very fine, juicy; flavor, moderately sweet, poor.

QUALITY: dessert, very poor; for cooking, good; valuable for canning.

VALUE: second class for all markets. This variety must be planted on good soils and highly cultivated and fertilized.

SEASON: October to January.

ADAPTATION: very general.

SECTION OF KIEFFER.

KOONCE.

Ordinary in its appearance, and only medium in size, but on account of the productiveness of the tree, it is considerably planted in Illinois for kitchen and market.

ORIGIN: Illinois.

TREE: hardy, healthy and productive.

FRUIT: medium in size; form, obovate pyriform; color of skin, greenish yellow, with small russet dots; stem, stout, 1 inch long, inserted in a medium-sized, shallow cavity.

FLESH: white; texture, granular; flavor, poor.

QUALITY: dessert, poor; cooking, fair.

VALUE: for market, second class.

SEASON: early October.

LAWSON. (*Comet.*)

The most beautiful pear of its season, which is about the middle of August, but inclined to rot at core and become mealy, if left hanging too long. Its flavor is disappointing, so that, in spite of its beauty, it is useless as a dessert pear. It has been widely advertised and too highly praised. In some parts, it is grown as a cooking pear for home markets. For distant markets, it is useless, because too tender in flesh.

ORIGIN: on the farm of Mr. Lawson, in New York State, about the year 1800, judging from the appearance of the original tree, which was still standing in the year 1900. Quite recently, it was introduced to the public by Mr. Collins, under the name Comet, by reason of its bright red color.

TREE: tender, vigorous; fairly productive; succeeds on the quince.

FRUIT: medium to large; obovate, almost pyriform; color, yellow, shaded and obscurely streaked with bright red on the sunny sides, with a few small brown dots; stem, 1½ inches long, with fleshy protuberance at point of insertion, inclined; calyx, half open in a large irregular basin.

FLESH: color, creamy white, coarse grained, mealy when ripe, inclined to rot at the core; flavor, sweet, fairly good.

QUALITY: dessert, good; cooking, good.

VALUE: market, second class.

SEASON: early to mid August.

LAWRENCE.

Probably the best dessert pear for use in early winter.

ORIGIN: Flushing, Long Island, according to Downing; New York State, according to Catalogue, American Pom. Soc.

TREE: a moderate grower; an early bearer; moderately productive.

FRUIT: size, medium to large; form, obovate, obtuse pyriform; color, lemon yellow, with numerous small dots; stem, one inch long in a shallow cavity; calyx, open in a small, five-humped basin.

LAWRENCE.

FLESH: color, yellowish white; texture, buttery and juicy; flavor, sweet, rich, aromatic, very excellent.

QUALITY: dessert, best; cooking, good.

VALUE: market, second rate.

SEASON: December.

ADAPTATION: one of the hardy pears.

LE CONTE.

An American pear grown for market in the Southern States. It is not considered profitable in Ontario.

ORIGIN: a Chinese seedling.

TREE: vigorous; productive; apparently not subject to blight.

FRUIT: large; form, oblong, pyriform, turbinate; color, yellow, often with slight touch of red on sunny side; skin, free from blemishes, and not subject to scab.

FLESH: white; texture, tender; flavor, sweet, perfumed, ordinary.

QUALITY: dessert, poor; cooking, fair.

VALUE: second class for market; very similar to Kieffer, but not as highly colored.

LOUISE. (*Louise Bonne de Jersey.*)

LOUISE.

An excellent export pear, if well grown. This and the Duchess have long held the first place as market varieties with growers of dwarf pears in Ontario.

ORIGIN: at Avranches, France, about 1780, by Mr. Longueval, and named after Madam Louise de Longueval. About 1827, grafts were secured by Andre LeRoy, of Angers. The original tree is said to be still standing.

TREE: hardy in southern Ontario, succeeds better on quince than on pear stock; a vigorous, upright grower; very productive, if well cultivated and set in deep, rich sandy loam.

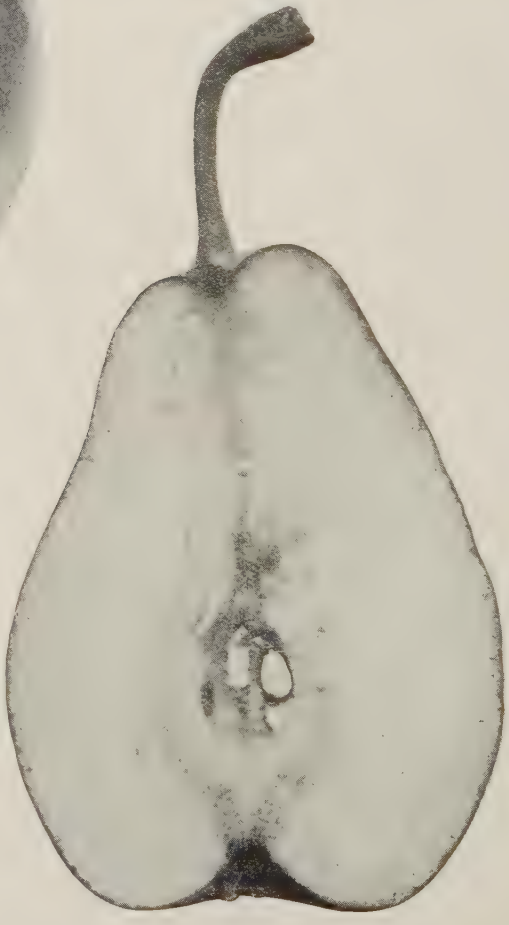
FRUIT: large; form, pyriform, sides usually unequal; skin, smooth, yellowish green, with brownish red cheek, with numerous red and brown dots; stem, 1 to 1½ inches long, usually fleshy at insertion on one side, somewhat swollen at each extremity, set in a very slight, if any, depression; calyx, half closed, set in a wide, shallow, slightly plaited basin.

FLESH: white; texture, fine grained, juicy, buttery, melting; flavor, pleasant, aromatic.

QUALITY: very good for dessert purposes.

VALUE: home market, fair; foreign market, first class.

SEASON: September to October.



SECTION OF LOUISE.

MANNING. (*Manning's Elizabeth.*)

A pretty little pear, desirable in the amateur's garden, but too small for the commercial orchard.

ORIGIN: in Louvain, in 1819, by Van Mons, who sent scions to America in 1832, to the Massachusetts Horticultural Society. Mr. Manning, having been asked by Van Mons to give it a name, called it, in 1840, Elizabeth of Van Mons, but Downing, 1842, proposed that it be called Manning's Elizabeth, to honor the zeal of this horticulturist in importing new fruit trees.

TREE: healthy, of medium vigor, shoots dull red; very productive.

MANNING.

FRUIT: size, small; form, regular, obovate, swollen towards the base; color, bright yellow, covered on the basal half with a deep brownish red, which often spreads over the sunny side; stem, one inch in length, swollen at the top, often set in an oblique depression; calyx, open, set in a shallow basin.

FLESH: color, creamy white; texture, fine, buttery, moderately juicy; flavor, sweet, rich, aromatic.

QUALITY: very good for dessert or pickling.

VALUE: second class for market purposes.

SEASON: August.

MARGUERITE. (*Petite Marguerite.*)

Among the desirable varieties of dessert pears for the home garden, we would certainly include the Petite Marguerite, a pear of the highest quality for table use. At Maplehurst, the tree has proved itself an abundant bearer and a good grower. The fruit is not large, but, as size is not an object in a dessert pear, this is not a fault. Its season is immediately after the Giffard and just before the Clapp and the Tyson. As a market pear, it is hardly to be commended, because of its small size and color; and it will be a long time before we can convince the average dealer that size and color are not the chief considerations in a fruit.

ORIGIN: Angers, France, in nurseries of Andre LeRoy.

TREE: second rate in vigor, and first rate in productiveness; succeeds as either standard or dwarf, but more vigorous as a standard.

FRUIT: small size to medium; form, oblate, obtuse pyriform; skin, light green, often tinged and mottled with bright red on sunny side, yellowing somewhat at maturity; stalk, 1¼ inches to 1½ inches in length, set in a narrow cavity, of which one side is often much higher than the other; calyx, partly open, in a shallow corrugated basin.

FLESH: white, yellowish at core; texture, fine, melting, juicy; flavor, sweet, vinous. agreeable.

QUALITY: very good for dessert.

VALUE: second class, should only be planted for home use.

SEASON: August.

OSBAND. (*Osband's Summer.*)

Widely grown in North America. A good dessert pear for home garden, but the fruit is small and the tree is too scant a bearer to be profitable.

ORIGIN: Wayne County, New York State.

TREE: a moderately upright grower, healthy, fairly productive, an early bearer.

FRUIT: size, small; form, obovate, slightly pyriform, regular; color, yellowish green, turning quite yellow at maturity, with a brownish red cheek and numerous small green and brown dots; stem, ⅞ of an inch long, set in a small, abrupt cavity; calyx, half open, in a broad, slightly depressed basin; core, small; seeds, small.

FLESH: color, white; texture, fine grained, juicy; flavor, perfumed, sweet, rich and pleasant.

QUALITY: dessert, very good; cooking, fair.

VALUE: home market, second class; distant market, fourth class.

SEASON: August.

PITMASTON. (*Pitmaston Duchess d'Angouleme.*)

A very promising variety, succeeding well as a dwarf; its large size, good shipping character, fine quality, and regular form, seem to make it very valuable for export. The fruit is too large to be grown as a standard.

ORIGIN: raised by John William, of Pitmaston, England; a cross between Duchess and Glout Morceau.

TREE: a very vigorous grower, and quite productive.

PITMASTON.

FRUIT: very large, oblong, obovate, obtuse, pyriform; skin, pale yellow, with light russet in cavity; stem, stout, 1½ to 1⅞ inches long, set in a small cavity; calyx, prominent, half open, set in a very shallow, shouldered basin.

FLESH: color, creamy white; texture, very fine, melting and juicy; flavor, very pleasant, aromatic, sometimes slightly astringent.

QUALITY: good, not quite equal to that of Duchess.

VALUE: not grown in Ontario.

SEASON: September and October.

PRESIDENT MAS.

A large, handsome winter pear.

ORIGIN: France.

TREE: a moderate grower; does best on quince stock.

FRUIT: size, large; form, obovate pyriform, irregular; skin, yellow at maturity.

SECTION OF PITMASTON.

FLESH: white; texture, melting, juicy; flavor, vinous, very good.

QUALITY: dessert, first rate.

VALUE: not grown in Ontario.

SEASON: December to January.

RITSON.

RITSON.

A delicious dessert pear, which is worthy of a place in every fruit garden; it is not surpassed for canning or for pickling, having an aroma and peculiarly agreeable flavor.

ORIGIN: Oshawa, Ontario, with Mr. Wellington. In response to our inquiry, Mr. W. E. Wellington writes:—"It was my grandmother, Mrs. John Ritson, who planted the seeds from a pear which had been sent her from Boston. The tree has always stood on my grandfather's homestead as long as I can remember."

TREE: strong, healthy, upright grower. The original tree is now of immense size, probably over 30 feet high, and about one hundred years old. An annual bearer of nice, evenly formed fruit.

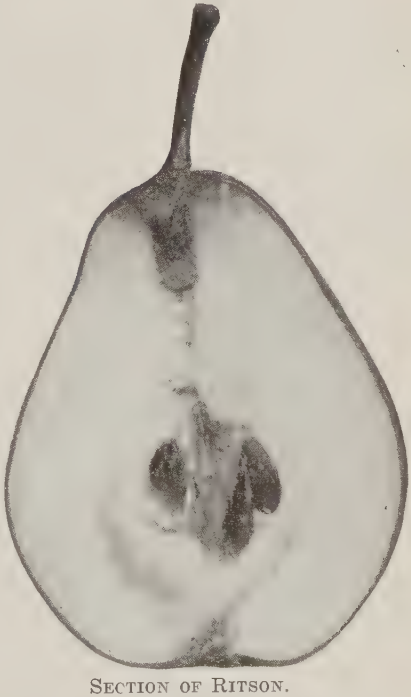
FRUIT: size medium, form obovate, pyriform, usually one-sided; color of skin yellow, heavily shaded with golden russet, and numerous minute dots of a darker russet; stem one-inch long, often inserted in a fleshy protuberance, and at a slight inclination; calyx open wide in a very shallow, regular basin.

FLESH: creamy white; texture fine, tender, buttery, juicy; flavor, sweet, delicately perfumed.

QUALITY: dessert very good to best; cooking very good.

VALUE: market promising for a special trade.

SEASON: October.

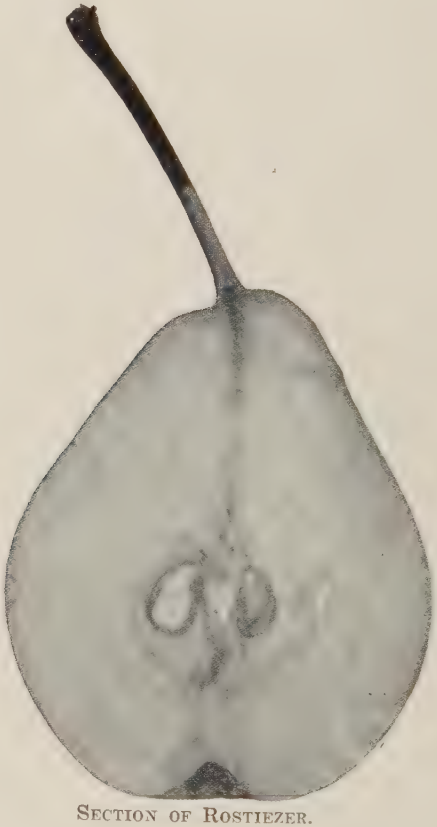


SECTION OF RITSON.

ROSTIEZER.

A small unattractive looking pear, of very high quality. It is the best of its season in quality for dessert purposes, and should have a place in the home garden. What the Seckel is in October, this pear is in August. The pear sells far below its value on account of its ordinary appearance.

ROSTIEZER.



SECTION OF ROSTIEZER.

TREE: healthy, vigorous, of sprawling habit; shoots few, and need shortening in.

FRUIT: small to medium, obovate, oblong pyriform; skin green, sometimes turning yellowish, with reddish brown cheek; stem slender and nearly two inches in length; calyx open; basin small.

FLESH: juicy, melting, sweet, very delicious, of very finest quality.

VALUE: market, third class.

SEASON: mid to late August.

SECKEL.

The finest dessert pear in cultivation, and one that should never be omitted from the garden, when planting pears for home use. Downing calls it "The richest and most exquisitely flavored variety known." At Maplehurst it has been grown both as a dwarf and as a standard; in the former case with the most satisfactory results, but in the latter, smaller, less highly flavored and less attractive in appearance.

Its small size rules it out of the commercial orchard, unless one can cultivate a very special demand among a certain class of consumers who will appreciate its high quality.

ORIGIN: on the farm of Mr. Seckel, of Philadelphia, near the Delaware river, where, in 1884, the original tree was still standing, aged one hundred years, and having reached the height of thirty feet. The Seckel was first introduced into England, into the garden of the Royal Horticultural Society in 1819.

SECKEL.

TREE: healthy, hardy, and productive; forms a compact symmetrical head; wood olive brown in color, stout and short jointed; succeeds best as a dwarf.

FRUIT: size small, form obovate, regular and even; color dull brownish green, yellowing as it ripens with a deep brownish red cheek; stem half an inch in length, in a very small cavity; calyx small, open, in a shallow basin.

FLESH: white; texture very fine grained, melting and juicy; flavor honey-sweet; rich, spicy, with delicate aroma.

QUALITY: dessert best; cooking good.

VALUE: first class for a special market; but second class where not known, on account of its small size.

SEASON: September to October.

SHELDON.

SHELDON.

One of the most delicious of dessert pears, if eaten just at the proper time.

ORIGIN: accidental on farm of Norman Sheldon, of Huron, Wayne Co., N.J.

TREE: vigorous, erect, not very productive, late coming into bearing.

FRUIT: above medium in size, roundish, obtuse obovate; skin yellowish-green, covered with thin light russet, brownish crimson in sun, russet dots; stalk short, stout, in a narrow cavity; calyx nearly open, in a broad basin.

FLESH: color creamy; texture buttery, juicy; flavor sweet, aromatic.

SEASON: October.

SECTION OF SHELDON.

SAPIEGANKA.

A Russian pear of fine appearance, scions of which were sent out to Mr. L. Woolverton in 1892, by M. Jaroslav Niemetz, of Winnitza, Podolie, Russia. Its fine appearance is in its favour, but its quality is inferior to other varieties of its season, and, unless it should prove desirable on account of its hardiness, would not be worthy of general cultivation. Mr. Niemetz says: "In its home in Lithuania, old and large trees are met with which have endured many and severe winters in the Tamboff Government. It is the most hardy of all pears there grown, and, therefore, is certainly a hardy variety. The flavor of the flesh depends upon local conditions, for, though it is tasteful enough in the warmer districts, it is sometimes harsh; when grown in the north is juicy and buttery."

TREE: hardy, productive, but subject to blight.

FRUIT: size medium, oblate, often somewhat flattened; color brownish yellow, with brownish red in sun, with numerous small dots; stem long in small cavity; calyx segments large, partly open in a broad, wrinkled basin.

FLESH: white; texture coarse, somewhat firm and juicy.

QUALITY: dessert poor; cooking poor.

VALUE: market third class.

SEASON: August.

ADAPTATION: succeeds well at Grimsby. Tested by the Dominion Experimental Farms and found tender in Manitoba and the Northwest, but perfectly hardy at Ottawa and in Muskoka.

SOUVENIR (*Souvenir du Congres*).

A very large, showy pear, but coarse in flesh and of ordinary quality. Single trees are found in many Ontario fruit gardens, but so far we know of no orchards of this variety planted for profit. Hogg, the British pomologist, however, speaks of it more highly, as follows:—"A very handsome and excellent pear; ripe in the end of August and the beginning of September. It has a great resemblance to the Bartlett, but is quite a distinct fruit."

ORIGIN: France, by M. Morel, of Lyon-Vaise, and dedicated to the Pomological Congress at France.

TREE: vigorous and productive, pyramidal.

FRUIT: very large, form oblong obovate, undulating in outline; color clear yellow when ripe, with a red cheek and many brown dots; stem ¾ of an inch long, stout, much inclined, inserted without a cavity; calyx large, open, set in a deep basin.

FLESH: color white; texture tender, but coarse, juicy, melting; flavor rich vinous, aromatic, somewhat resembling that of Bartlett.

QUALITY: dessert fair; cooking not tested.

VALUE: home market first class.

SEASON: late September and early October.

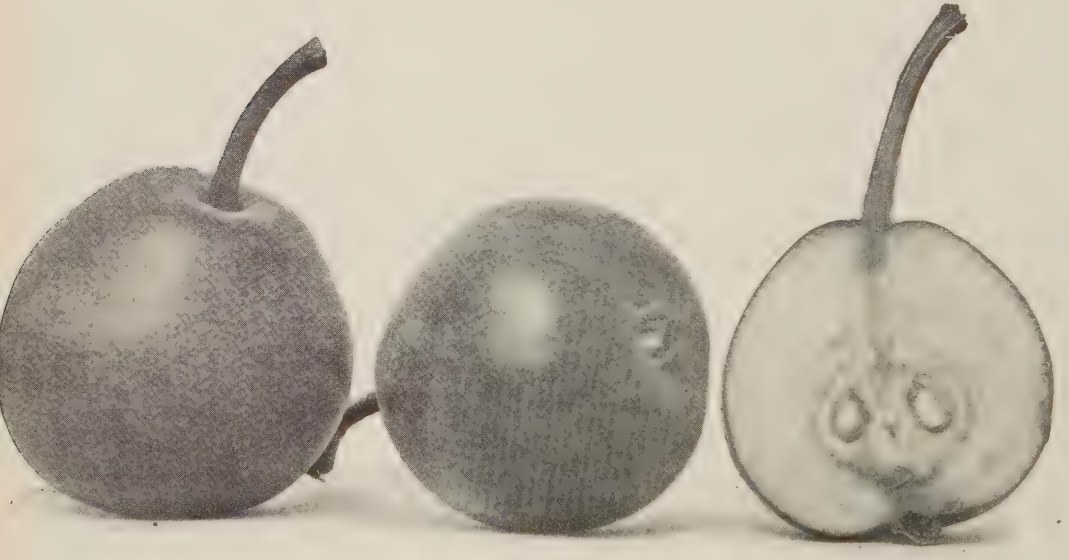
ADAPTATION: not widely tested in Ontario.

SUMMER DOYENNE (*Doyenne d'Ete of Hogg; Doyenne de Juillet of Le Roy*).

For the home garden this pear is most desirable not only for its good quality for dessert purposes, but because it has no competitor in the last half of July. It should be gathered before it is mellow to preserve its juciness, for, if ripened on the tree, it becomes mealy and insipid. Its very small size makes it undesirable in the commercial orchard, especially now that we must compete with larger varieties from California, which ripen earlier in that climate than they do with us.

ORIGIN: Dr. Van Mons, Professor at Louvain, Belgium, about 1823, at which time he had on his grounds about 2,000 seedlings of merit.

TREE: vigorous young shoots, light yellowish brown, of upright slender habit; an early and abundant bearer; succeeds as dwarf or standard.



SUMMER DOYENNE.

FRUIT: small; form roundish, obovate; color green to lemon yellow with brownish red cheek on the sunny side, and numerous grey dots; stalk about an inch long, sometimes longer, stout, attached in a very slight depression; calyx small, half open, in a shallow plaited basin.

FLESH: white; texture fine, tender, juicy; flavor sweet and pleasant with slight aroma.

QUALITY: dessert very good; too small for cooking.

VALUE: too small for a market pear, except in limited quantities.

SEASON: July.

ADAPTATION: hardy in Southern Ontario; fairly hardy in Bruce and Huron.

TRIUMPH.

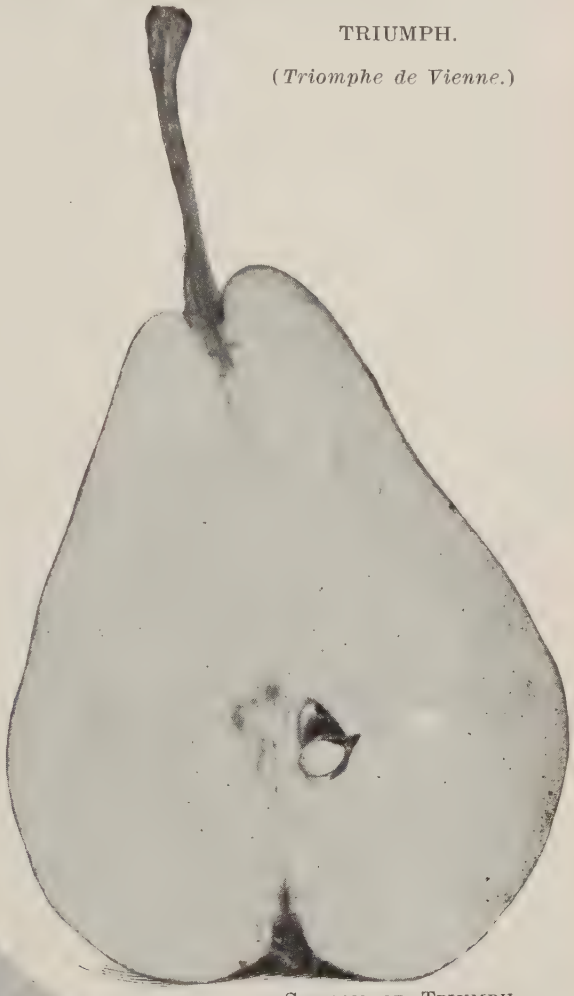
(*Triomphe de Vienne.*)

A very fine, large, showy pear, a trifle later than Bartlett, larger in size, but not equal to it in quality; promising as a commercial variety.

ORIGIN: France.

TREE: a thrifty, upright grower; productive.

FRUIT: large; form obovate, pyriform, somewhat uneven and irregular; skin greenish yellow, with patches of russet; stem one and a quarter inches long, set in a shallow, uneven, often one-sided cavity; calyx open, in a broad, irregular, russeted basin.



SECTION OF TRIUMPH.

TRIUMPH.

FLESH: creamy white, very juicy; flavor rich, sweet and excellent.

QUALITY: dessert very good; cooking very good.

VALUE: market, home or foreign, second class.

SEASON: September.

TYSON.

A fine pear yielding enormous crops of medium sized fruit, very good for dessert or cooking; but too near the season of the Bartlett to be profitable for market.

ORIGIN: a seedling found in a hedge on the farm of Jonathan Tyson, near Philadephia.

TREE: vigorous; upright; very productive.

FRUIT: size medium; form acute pyriform; color green, turning yellow when fully ripe, russet about basin, cheek crimson, dots brown, numerous; stem 1¼ inches long more or less fleshy at base; calyx open.

TYSON.

FLESH: color white; texture tender, buttery, fine grained, juicy; flavor sweet, aromatic, excellent.

QUALITY: dessert very good; cooking very good.

VALUE: home market second class.

SEASON: August.

VICAR (*Vicar of Winkfield of Hogg; Cure of Leroy*).

A French pear considerably grown in Ontario as a winter pear, but it does not reach its best perfection in our climate and does not deserve a place in our orchards.

ORIGIN: found wild near Clion, France, by M. Leroy, curate of Villiers-en-Brenne, in the year 1760; distributed in France under sixteen different names; introduced into England by the Rev. W. L. Rham, vicar of Winkfield, in Berkshire, hence its English name.

TREE: vigorous, but somewhat susceptible to blight; very productive.

FRUIT: large; form long pyriform, one-sided; skin green, seldom tinged with brown on the sunny side, and marked with small brown dots; stem usually one and a half inches long, fleshy at base, and inserted obliquely without a cavity; calyx open, with large segments, set in a shallow basin.

FLESH: greenish white; texture firm, not very juicy as grown in Ontario; flavor fair, if well ripened.

QUALITY: dessert very poor; cooking fair.

VALUE: home and foreign market second class.

SEASON: early winter.

WILDER.

A valuable early market pear, being beautiful in appearance, of fair size and very good flavor; probably the best of its season, but inclined to rot at the core if left hanging on the tree.

WILDER.

ORIGIN: chance seedling on south shore of Lake Erie.

TREE: vigorous, very productive, and an early bearer when grafted on the quince.

FRUIT: fair to large in size; form ovate, obtuse pyriform, sometimes shouldered at stem; color greenish-yellow, with deep red cheek and numerous gray dots; stem stout, three-quarters to one inch in length; calyx open.

FLESH: white; texture tender, fine grained; flavor sweet, aromatic and very pleasant.

QUALITY: dessert very good.

VALUE: home market first class.

SEASON: August.

WHITE DOYENNE (*Virgalieu of New York State*).

An old variety with many French synonyms, of which the proper one according to LeRoy is La Doyenne. Downing speaks of it as "unquestionably one of the most perfect of autumn pears," and on account of its excellent quality and the productiveness of the tree, it was at one time widely planted in the commercial orchards of Ontario and the United States. Latterly, however, like the Flemish Beauty, it has become subject to black spot, for which reason it is losing favor.

ORIGIN: France.

TREE: healthy, not subject to blight; a fairly vigorous grower, and an abundant bearer; usually grown as a standard.

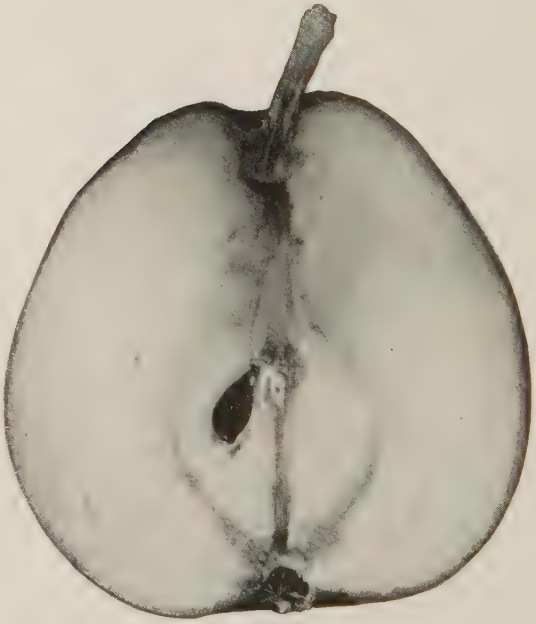
FRUIT: size medium to large, form obovate, variable in length; skin green at first, changing to yellow as it ripens, sometimes red in the sun, sprinkled with numerous russet dots; stem ¾ of an inch long, set in a shallow cavity; calyx half closed in a shallow slightly plaited basin.

FLESH: white, texture fine grained, buttery, fairly juicy; flavor sugary, aromatic, perfumed.

QUALITY: dessert very good; cooking very good.

VALUE: market second class.

SEASON: September and October.



WINTER NELIS.

An old variety of excellent quality, which has long occupied a high place as a winter dessert pear to succeed the Lawrence; scarcely large enough nor attractive enough to be highly recommended for the commercial orchard.

ORIGIN: raised by Jean Charles Nelis, of Malines, in Belgium; introduced into England in 1818.

TREE: a spreading, straggling, stocky grower; should be topworked; hardy; an early bearer; very productive.

WINTER NELIS.

FRUIT: size small to medium; form roundish obovate, short pyriform; color of skin dull green, becoming yellowish green with dots and patches of brown russet; stalk about one and a quarter inches long, curved, set in a narrow cavity; calyx open, with erect segments, in a shallow, somewhat plaited basin.

FLESH: color yellowish white; texture fine grained, buttery, juicy; flavor rich, sugary, vinous, aromatic.

QUALITY: dessert very good to best; cooking good.

VALUE: market second class.

SEASON: early to mid-winter.

THE PLUM

The plum has a wider range over the Province of Ontario than the pear or peach, this fruit being a native of the Province and found as far north as Manitoba.

There are three large groups into which the plums may be divided here, namely, the European, Japanese, and American. In the European or domestic group are included most of the varieties which are grown in Ontario commercially. These plums are not as hardy as the natives, hence their profitable culture is limited to almost exactly the same districts as the pear, the commercial orchards being mostly found in southern Ontario, the Georgian Bay District, and along Lake Ontario west of the Bay of Quinte. A few of the hardiest produce crops occasionally in eastern Ontaria and up to about latitude 45 degrees in central Ontario, but they are too uncertain to be grown for profit.

The Japanese plums are grown over practically the same area as the European, but the fruit buds average a little more tender.

In the American group are included the Americana and Nigra plums, the former being derived from a hardy United States species and the latter from the native Canadian plum. The varieties of this group are quite hardy and can be grown commercially where the European and Japanese plums will not succeed, and while not so good in quailty as the others good prices are at present obtained for what are produced.

Plums are not being so extensively planted at present as other large fruits, since during recent years the markets have several times been glutted, resulting in low prices. The demand for plums is, however, always large, and the excellent market which is opening up in the Northwest will probably in the future prevent, in a great measure, this over supply.

The cultural directions for the apple will apply in most particulars to the plum, which will succeed on almost all kinds of well-drained soils, although it does best on the heavier clay loams. Trees one or two years of age should be planted about eighteen feet apart each way, the soil having been thoroughly prepared beforehand. The trees should be severely headed back when planted, and future pruning will consist in forming a well-shaped open head. As some varieties make exceptionally strong growth it is a good practice when the trees are young to prune the young growth back about one-half each spring to avoid splitting. When the trees begin to bear little pruning is necessary, as they usually bear so heavily that the trees do not make much growth annually.

Orchards should be kept thoroughly cultivated, and cover crops are recommended as for the apple, cherry, peach and pear. The fruit should be picked when it is well colored but still firm.

Varieties Recommended.

General Lists, approved by the Board of Control.

Americana: These are extremely hardy and desirable where the European and Japanese varieties cannot be grown. Aitken, Cheney, Bixby, Mankato, Wolf, Hawkeye, Stoddard.

European: Bradshaw, Imperial Gage, Gueii, Shippers' Pride, Lombard (liable to overbear, requires thinning), Quackenboss, Yellow Egg, Grand Duke, Golden Drop (Coe), Reine Claude (one of the best for canning).

Japanese: These are apparently quite as hardy as the European varieties: Red June, Abundance, Burbank, Climax.

DISTRICT LISTS.

Niagara District

(Including Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment.)

Robt. Thompson St. Catharines.

Red June, Climax, Shiro, Burbank, Arctic, German Prune, Shropshire Damson, Grand Duke, Monarch, Reine Claude.

E. M. Smith, Winona.

Burbank, Bradshaw, Lombard, Grand Duke, Monarch, Reine Claude, Shropshire Damson, German Prune, Fallenburg, Washington for deep, dry soil.

Oakville District

(Including the southern part of the counties on Lake Ontario between Hamilton and Toronto).

A. W. Peart, Burlington.

European: Bradshaw, Niagara, Imperial Gage, Lombard, Prince of Wales, Yellow Egg, Reine Claude, Staunton.
Japanese: Red June, Abundance, Burbank.

W. F. W. Fisher, Burlington.

European: Bradshaw, Imperial Gage, Lombard, Reine Claude, Grand Duke.
Japanese: Red June, Abundance, Burbank.

Essex Peninsula

(Including Essex, Kent and Pelee Island).

J. L. Hilborn, Leamington.

Burbank, Lombard, Imperial Gage, Yellow Egg, Reine Claude.

J. Aitkin & Son, Leamington.

Burbank, Grand Duke, Lombard, Reine Claude.

Forest District

(Including County of Lambton).

D. Johnson, Forest.

Bradshaw, Imperial Gage, Reine Claude.

Lake Huron District

(Including Counties of Huron and Bruce).

D. F. Hamlink, Goderich.

Japanese: Burbank.
European: Bradshaw, Imperial Gage, Shippers' Pride, Lombard, Monarch, Grand Duke.

Georgian Bay District

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay).

J. G. Mitchell, Clarksburg.

Red June, Lombard, Archduke, Yellow Egg, Golden Drop, Reine Claude.

Lake Simcoe District

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe).

G. C. Caston, Craighurst.

Burbank, Staunton.

Guelph District

(Including the high inland Counties of south-western Ontario, *i.e.*, Wellington, Waterloo, northwestern section of Perth, south part of Grey-Dufferin, and northwest section of Peel and Halton).

Prof. J. W. Crow, O.A.C., Guelph.

Bradshaw, Imperial Gage, Shippers' Pride, Lombard, Reine Claude, Glass.

St. Lawrence Valley District

(Including the valley of the St. Lawrence River from Kingston to the eastern boundary of the Province).

Harold Jones, Maitland.

American: Aitken, Bixby, Mankato, Cheney, Wolf, Schley, Brackett, Hawkeye. Stoddard.
European: Glass, Raynes, Mount Royal, Lunn.

Ottawa District

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

American and Nigra: Aikin, Bixby, Mankato, Cheney, Wolf, Schley, Brackett, Hawkeye, Stoddard.
European: Early Red (Russian), Mount Royal, Glass, Montmorency, Raynes, Perdrigon.

Algoma District

(Including the islands of Manitoulin and St. Joseph and a limited portion of the northern and eastern shore of the Georgian Bay).

Chas. Young, Richard's Landing.

European: Glass, Lombard, Pond, Trabesh (Russian), Goliath (Russian).
Americana: Cheney, Wolf, Hawkeye, Stoddard, City.

DESCRIPTION OF VARIETIES.

ABUNDANCE.

One of the best of the Japan plums for the home garden. It is early in season, being ripe about the middle of August, but matures unevenly. To get its best flavor it should be picked while still firm, and ripened indoors like a Bartlett pear; it will color beautifully, become very juicy, and the flavor will be sweet and rich.

ORIGIN: one of Luther Burbank's importations from Japan in 1884.

TREE: vigorous; productive, a six-year-old tree, at the Lake Huron fruit station, bearing six 12-quart baskets of fruit in 1901; habit upright.

ABUNDANCE.

FRUIT: size medium to large; form roundish, narrowing toward the apex; color bright red on a yellowish ground with numerous red dots; stalk strong three-quarters of an inch long, inserted in a narrow, deep cavity; suture shallow, distinct; apex pointed; pit oval; a partial cling.

FLESH: color yellow; texture tender, very juicy; flavor sweet and delicious.

VALUE: one of the best of the early plums.

SEASON: mid-August.

AITKEN.

"Fruit large, oval; cavity narrow, medium depth; suture obscure; apex pointed; color uniformly deep red all over; dots none; bloom none; skin thin; flesh deep yellow, juicy, moderately sweet, not rich or high flavored; stone large, flat, oval, semi-cling,

AITKIN.

no astringency; quality medium to above; season last week of August. Tree only fairly productive. Nigra group. The earliness of this plum is the principal point for recommendation." (*Macoun.*)

AMERICA.

TREE: large, vigorous, spreading, hardy, very productive; fruit early; one and three-quarters in diameter, roundish-oval, halves equal; cavity, shallow, flaring; suture shallow, a distinct line; apex roundish; color, clear, dark, currant-red over golden-yellow, mottled, with thin bloom; dots numerous, small, whitish, inconspicuous; stem slender, one-half inch long, adhering to the fruit; skin thin, bitterish, separating readily from the pulp; flesh yellow, juicy, fibrous, somewhat tender, sweet, not high in flavor; fair in quality; stone clinging, seven-eighths inch by one-half inch in size.

AMERICA.

ARCH DUKE.

A good market variety.

ORIGIN: imported from England, by S. D. Willard, Seneca, N.Y.

TREE: Domestica.

FRUIT: size large; form oval, necked; stem medium, stout; cavity deep, medium; color dark blue with many russet dots; bloom bluish, heavy; suture more than half round.

FLESH: yellowish; cling; texture meaty, juicy; flavor subacid, pleasant.

QUALITY: cooking, very good.

VALUE: first class in some localities.

SEASON: late.

ARCTIC.

The tree is hardy and the fruit is of some value where the better varieties do not succeed. It is very productive, but too small to bring the best prices in the market, especially in view of its ordinary quality.

ORIGIN: Maine.

TREE: hardy; fairly vigorous; productive; trees at the Lake Huron station, eight years planted, yielded from six to eight baskets each.

FRUIT: size small, form oval; color very dark purple, with thin blue bloom; suture traceable; stem slender, three-quarters of an inch long, set in a small cavity.

FLESH: color yellowish green; texture firm, moderately juicy; flavor moderately sweet; free stone.

QUALITY: dessert, useless; cooking, good.

VALUE: market, second to third class.

SEASON: mid-August to early September in southern parts of the Province, and early September in more northerly plum districts.

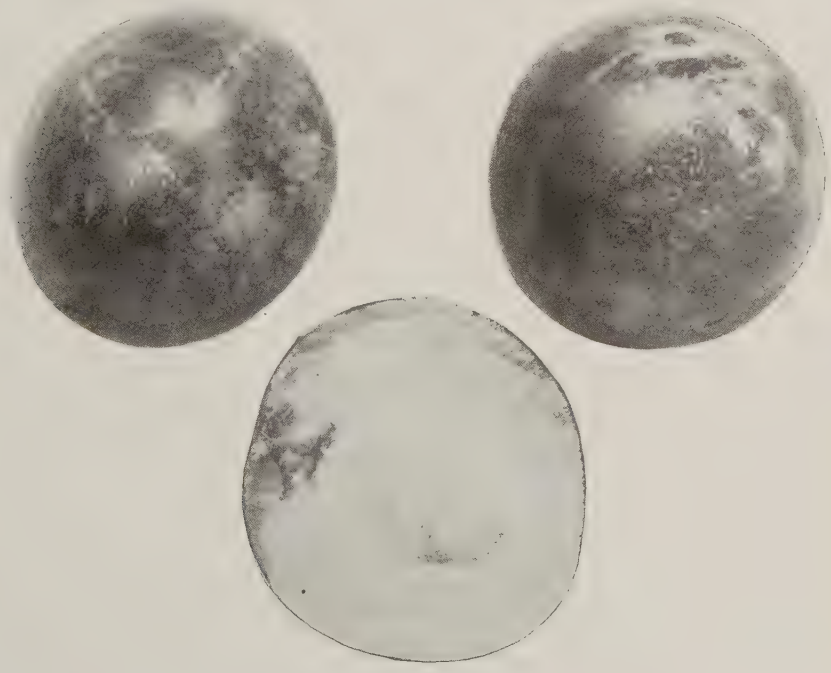
BIXBY.

"Fruit above medium to large, roundish; cavity narrow, medium depth; suture rather indistinct, slightly depressed; apex rounded; color yellow, more or less covered with bright red; dots numerous, small, yellow; bloom fairly heavy; skin moderately thick, rather tender; flesh deep yellow, juicy; stone medium size, oval in outline, considerably flattened, cling; sweet but not rich in flavor, no astringency; quality good; season late, August to early September. A very handsome early plum. Chief fault is unevenness of ripening. Makes good preserves." (*Macoun.*)

BIXBY.

BRACKETT.

"Form roundish, flattened at ends; large to very large; cavity medium width, shallow, stem half inch, slender; suture a distinct line, no depression; apex flattened, indented; color yellow, almost entirely overspread with deep purplish red; dots numerous, yellow, distinct; bloom moderate, bluish; skin thick, tough; flesh deep yellow, meaty, juicy; stone above medium, roundish, flattened, cling; sweet, rich, good flavor; quality good." (*Macoun.*)



BRACKETT.

BRADSHAW (*Niagara, Blue Imperial*).

Considered by many one of our most valuable European varieties, whether for home use or market, because of its fine quality, its large size and beautiful appearance.

TREE: erect, vigorous, moderately productive with occasional heavy crops; late coming into bearing; class, Domestica.

BRADSHAW.

FRUIT: size large; stalk one inch long, slightly curved; color reddish-purple, with blue bloom; apex round, slightly depressed; suture on one side, broad and shallow.

FLESH: color yellowish; texture juicy, tender; flavor rich and sweet; pit long, thin oval, partial cling.

QUALITY: dessert, very good; cooking, very good.

VALUE: home market, first class.

SEASON: mid to late August.

BURBANK.

The Burbank is one of the best of the Japanese plums for the commercial orchard, on account of its beauty, its great productiveness, and its excellent shipping quality.

ORIGIN: It was in 1885 that Mr. Luther Burbank, of Santa Rosa, California, imported some plum trees from Japan and, when they fruited, he selected this as one of the best and most worthy of propagation. In 1891 he sent samples to the Department of Agriculture at Washington and the Pomologist of the Department named it Burbank, after the introducer.

This plum has been before us for over fifteen years, and notwithstanding the great number of Japanese varieties now sold by nurserymen, still holds the highest place.

Compared with the Domestica class, the Japanese are inferior in quality, but when fully ripened, are fairly good eating. Like the Kieffer pear, the Burbank plum is making its reputation rather on quantity than on quality.

TREE: hardy; a very vigorous, wayward grower; an early and most abundant bearer; the fruit needs thinning to secure good size.

Fruit: medium to large; form, when properly thinned, nearly round, but slightly conical; color orange yellow ground, shaded with red, and almost purple on the side exposed to the sun; skin very smooth, with a slight bloom, peels easily when ripe; suture traceable; apex a small point; stem half to five-eighths of an inch long, stout; cavity deep, abrupt, with leather-crack marks.

Burbank.

Flesh: color amber; texture juicy and tender when fully ripe; flavor sweet, fairly agreeable; stone medium, pointed, cling.

Quality: good for cooking; fair for dessert.

Value: first class for market.

Season: late August.

Adaptation: general; succeeds fairly well on St. Joseph Island.

CLIMAX.

A very large, fine looking Japan plum; a fine market variety.

Origin: Hybrid of P. Simoni and Botan, raised by Luther Burbank, of Santa Rosa, California.

Tree: vigorous; productive.

Fruit: size very large; form heart shaped, one sided; color vermilion, with numerous white specks.

Flesh: cling; color yellow; texture firm, juicy; flavor rich, aromatic.

Quality: dessert, good.

Value: market, first class.

Season: mid-August.

CARO.

A seedling of Wolf, which originated at the Central Experimental Farm, Ottawa, Canada, in 1895. Fruit, large, roundish; suture distinct; bright red, showing yellow in patches; dots numerous, yellow, distinct; bloom light; skin thick; flesh deep yellow, juicy, sweet, rich; good; mid-season.

CARO

CHENEY.

"Fruit large, round to somewhat oval, uneven; cavity narrow, medium depth; suture merely an indistinct line; apex rounded; color uniformly deep red all over, sometimes paler on one side; dots none; bloom none; skin moderately thick, tough, not astringent; flesh deep yellow, juicy; stone medium size, flat, oval, cling; sweet, moderately rich flavor; quality good. Season late August to early September. One of the best. It soon gets soft, however, after ripening. Tree a strong grower, moderately productive. Nigra group." (*Macoun.*)

CHENEY.

CHABOT (*Yellow Japan, Bailey*).

This is the best Japan plum of its season, which is about two weeks later than Burbank.

ORIGIN: imported from Japan by Mr. Chabot, of Berkeley, Cal., and introduced to the trade by Mr. Luther Burbank in the year 1896.

TREE: very vigorous, head fine, large, symmetrical; productive; an early bearer.

FRUIT: medium to large for a Japan plum; form oblong conical, almost heart shaped; color red, with pinkish bloom and numerous minute yellowish specks; stem three-quarters of an inch long, stout; apex a point in a narrow, deep depression; suture traceable.

CHABOT.

FLESH: color yellowish; texture moderately firm and juicy; flavor sweet, perfumed, very pleasant; clings to stone.

QUALITY: dessert, good; cooking and drying, very good.

SEASON: early to mid September.

COE (*Coe's Golden Drop*).

A popular canning plum for the home garden; scarcely productive enough to be recommended for the commercial orchard.

ORIGIN: England.

TREE: vigorous; fairly productive; class Domestica.

FRUIT: large; form oval; suture distinct; neck short; sides unequal; color golden yellow with dots of red next the sun; bloom yellow; stalk three-quarters of an inch long stout, in a shallow cavity.

FLESH: cling; color yellowish; texture firm, not fine grained; flavor sweet and pleasant.

QUALITY: cooking, very good; dessert, fair.
VALUE: market, first class.
SEASON: mid-September.

COE.

COLUMBIA.

Variety somewhat like Reine Claude but not as good.
ORIGIN: New York.
TREE: large, slightly spreading, productive.
FRUIT: medium, roundish oval, dark, purplish red.
FLESH: yellow, firm and sweet.
SEASON: mid-season.
VALUE: not grown to any extent in Ontario, and not of highest quality.

COLUMBIA.

DIAMOND (*Black Diamond*).

Considerably grown for cooking purposes.

ORIGIN: Kent, England.

TREE: vigorous; productive; class Domestica.

FRUIT: size large; form oval; suture distinct, shallow; stem three-quarters of an inch long in a narrow, deep cavity; dots small; color dark purple with pale blue bloom.

FLESH: cling; color deep yellow; texture coarse grained, dry; flavor brisk acid.

QUALITY: dessert, poor; cooking, good.

VALUE: market, first class.

SEASON: September.

DUANE (*Duane's Purple*).

A good commercial plum, a profitable variety in the Western States.

ORIGIN: Duanesburgh, N.Y.

TREE: vigorous, productive.

DUANE.

FRUIT: very large; form oblong, oval longer on side; color reddish purple with lilac bloom, turning dark blue; stalk slender, three-quarters of an inch long set in a narrow cavity.

FLESH: color yellow; texture tender, juicy; flavor moderately sweet and good; partial cling stone.

SEASON: late August to early September.

QUALITY: cooking, good.

VALUE: market, first class.

GERMAN PRUNE.

Highly valued for shipping to distant markets because it keeps and carries well; valued also for drying and preserving.

ORIGIN: Germany; widely grown over Europe.

TREE: fairly vigorous; productive; may be propagated from seed without much variation.

GERMAN PRUNE.

FRUIT: size medium, sometimes below; form long oval, sides unequal, elongated; suture distinct; stem three-quarters of an inch long, curved, inserted without cavity; color purple, with blue bloom.

FLESH: free from pit; color yellowish green; texture firm; flavor sweet, pleasant, not rich.

QUALITY: dessert, poor; drying, good.

VALUE: near market, first class; distant market, first class.

SEASON: September and October.

GLASS (*Glass' Seedling*).

A commercial variety resembling Quackenboss.

ORIGIN: with Alexander Glass, at Guelph, Ontario.

TREE: hardy; vigorous; habit upright; foliage peculiar dark green; productive; class Domestica.

FRUIT: size large; form round oval, irregular at apex; suture distinct; apex depressed; stem three-quarters to one inch long; color dark purple with thin blue bloom and white dots; skin thick, firm.

GLASS.

FLESH: free from pit; color greenish yellow; texture juicy; flavor sweet and agreeable.

QUALITY: dessert, fair; canning, good.

VALUE: market, good.

SEASON: September.

GOLD.

A very attractive plum, because of its golden yellow color, but not recommended for the commercial orchard.

ORIGIN: a hybrid of Chicasaw and Japan, originated by H. A. Terry, of Crescent, Iowa.

TREE: a poor grower, but an early and abundant bearer.

FRUIT: large roundish; color golden yellow, with a blush of light red about the stem; stem three-quarters of an inch in length; skin tough.

FLESH: yellow; texture tender and juicy; flavor sweet, aromatic, and pleasant; cling stone.

QUALITY: dessert, fair.

VALUE: market, second class.

SEASON: late August.

GRAND DUKE.

A valuable market plum, on account of its large size and handsome appearance.

ORIGIN: Europe.

TREE: healthy; moderately vigorous; quite productive.

FRUIT: size large; form obovate; color dark blue or black with dark blue bloom; stem about one inch long, in a small cavity; suture deep.

GRAND DUKE.

FLESH: color yellow; texture firm flavor agreeable; cling.

VALUE: one of the best late market plums.

SEASON: late September.

GUEII (*Blue Magnum Bonum*).

A valuable plum for the commercial orchard.

ORIGIN: with Mr. Hagaman, Lansingburgh, N.Y., about 1850. It was named after John Goeway (pronounced Gueii), who was the first to cultivate the plum extensively, and it has of late been spelled after the pronunciation.

TREE: an upright, vigorous grower, becoming more spreading with age; hardy; an early and abundant bearer.

GUEII.

FRUIT: size medium to large; form roundish ovate, narrowing slightly toward apex; color very dark purple, with blue bloom; stem one and a half inches long, slender, set in a large, deep cavity; suture very slight; apex a small point.

FLESH: color pale yellow; texture firm, juicy; flavor, moderately sweet, pleasant; almost free of stone.

QUALITY: dessert, poor; canning, very good.

VALUE: home market first class.

SEASON: late August to early September.

HALE.

A yellow Japan plum coming in between Abundance and Burbank.

ORIGIN: Japan; imported by Luther Burbank in 1885; named after the introducer, Mr. J. H. Hale.

TREE: very vigorous; habit spreading; very productive in 1905.

FRUIT: size rather above medium; form globular; suture traceable on one side; color of skin orange, with thin whitish bloom; stem slender, three-quarters of an inch in length; drops easily.

FLESH: color golden yellow; texture tender, juicy; flavor rich, pleasant; cling.

QUALITY: dessert, good; canning, very good.

VALUE: market, second class. Not grown in Ontario.

SEASON: mid to late August.

HAND (*General Hand*).

A very fine, large plum of the Gage group, which is worthy of a place in the amateur's garden as a dessert or preserving plum, but not profitable as a market variety.

ORIGIN: on farm of General Hand, Lancaster, Pennsylvania.

TREE: a very vigorous grower, but a shy bearer until well aged; class Domestica.

FRUIT: round; size medium to large; skin deep golden yellow, marbled with greenish yellow; stem slender, about an inch long, inserted in a shallow cavity; suture shallow.

HAND.

FLESH: color pale yellow; texture coarse, moderately juicy; flavor sweet and very good; free from stone.

QUALITY: very good for dessert.

VALUE: market, first class.

SEASON: September.

HAMMER.

"Fruit round oval; size medium to large; cavity very shallow; suture a line; color crimson; dots many, minute, and a few larger yellow; bloom blue; skin thick; flesh yellow; stone small, round, slightly flattened, nearly free; quality very good; season after Wolf and Weaver. Originated with H. A. Terry, Iowa, who says it is a seedling of Miner, but thinks it has an admixture of Americana blood. A fine variety." (*Waugh.*)

HAWKEYE.

FRUIT: large, roundish; cavity shallow, narrow; suture merely a distinct line; apex rounded; color yellow, more or less covered with purplish red dots, small, indistinct; bloom medium; skin thick, moderately tough.

HAWKEYE.

FLESH: deep yellow, juicy; stone large, broad, much flattened, cling; sweet, good flavor.

QUALITY: good.

SEASON: mid to late September. One of the best. (*Macoun.*)

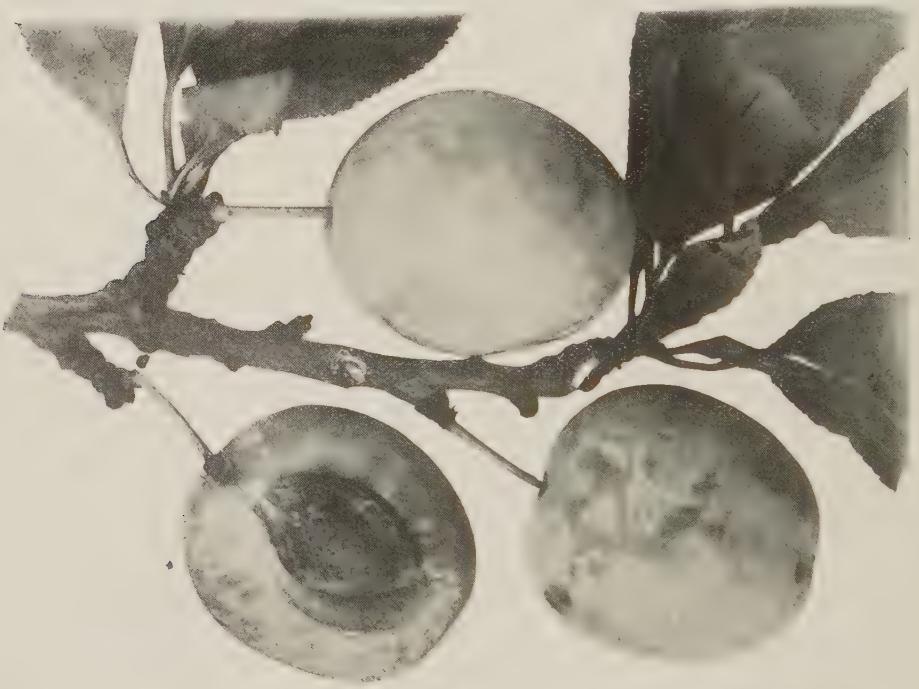
IMPERIAL GAGE.

An excellent preserving or canning plum, but not very popular for the commercial orchards.

ORIGIN: Flushing, Long Island.

TREE: vigorous; productive; hardy; class Domestica.

FRUIT: size medium or below; form oval; color green tinged with yellow; dots greenish; bloom whitish; stem three-quarters of an inch long; suture shallow; skin tough.



IMPERIAL GAGE.

FLESH: mostly free; color greenish yellow; texture juicy, melting; flavor rich, excellent.

QUALITY: dessert, very good; canning, best.

VALUE: market, first class.

SEASON: early September.

ITALIAN PRUNE (*Fellenburg*).

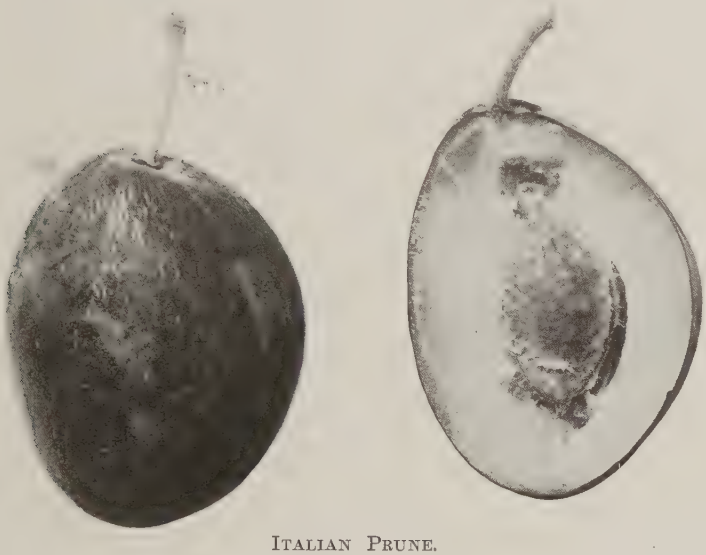
An old variety from Europe; a fine late shipping plum, and widely grown for market.

ORIGIN: Europe.

TREE: of spreading habit; productive; class Domestica.

FRUIT: size medium; form oval narrowing at the ends, one sided; stem one inch long in small cavity; suture shallow; skin thin; color dark purple with blue bloom.

FLESH: free stone; color greenish yellow; texture fairly juicy; flavor sweet, good.



ITALIAN PRUNE.

QUALITY: dessert, fair; cooking, very good.

VALUE: market, first class.

SEASON: September.

KINGSTON.

A valuable market variety.

ORIGIN: Province of Ontario.

TREE: vigorous and productive.

FRUIT: size medium to large; form oval; color dark purple, with thin blue bloom; stem slender, about five-eighths of an inch long, inserted in a small, deep cavity; suture shallow; apex a small point.

FLESH: color yellowish green; flavor tart.

QUALITY: cooking, very good.

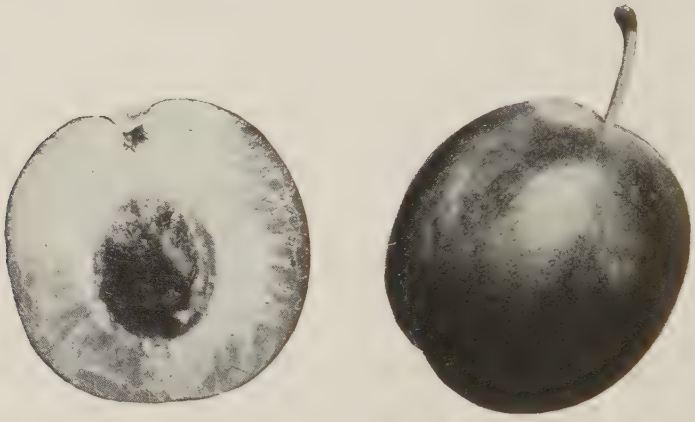
SEASON: early September.

LOMBARD.

One of the most prolific of the old varieties, and, until recently, considered the most profitable. Of late, however, the price of Lombard plums has so far declined that other varieties are being planted in its place.

ORIGIN: raised from seed by Judge Platt, Whitesboro, N.Y.; introduced to public by M. Lombard, of Springfield, Mass., after whom it was named. Previously it was called Bleeker's Scarlet.

TREE: very productive; very vigorous; very hardy; inclined to overload, and the fruit needs thinning.



LOMBARD.

FRUIT: medium size; form roundish, oval, slightly flattened at the ends; color purplish red, paler in shade; bloom heavy; suture traceable; stalk slender, about three-quarters of an inch, set in a broad, funnel-shaped cavity; subject to rot when overloaded.

FLESH: deep yellow; texture firm, juicy; flavor pleasant; cling stone.

QUALITY: dessert, good; canning, very good.

VALUE: second class for market.

SEASON: late August to early September.

McLAUGHLIN.

A fine plum for home uses; a little tender for distant shipment.

ORIGIN: with James McLaughlin, Bangor, Maine.

TREE: vigorous; fairly productive; an early and an annual bearer; class Domestica.

FRUIT: size medium to large; form roundish oval, flattened at the ends; stem five-eighths of an inch long, in a small shallow cavity; apex, small point in a slight depression; suture traceable; skin thin; color greenish yellow, mottled with red; bloom delicate whitish.

FLESH: semi-cling; pit small; color clear yellow; texture tender, very juicy; flavor rich, sweet and excellent.

QUALITY: dessert, very good to best; cooking, good.

VALUE: market, first class; rather tender for distant shipments.

SEASON: September.

MANKATO.

"Fruit above medium to large, roundish; cavity narrow, medium depth; suture a distinct line; apex rounded; color deep, dull red with a moderately heavy bloom; dots numerous, small, yellow; bloom rather heavy; skin thick, tough; flesh deep yellow, juicy, sweet, good flavor, not astringent; stone large, flat, semi-cling; quality good. Season late August to early September. Better in quality than Bixby, but not as handsome. A good early plum. Promising." (*Macoun.*)

MANKATO.

MARU.

Productive and early, but too small and poor in quality to be recommended.

ORIGIN: imported by L. Burbank in 1885.

TREE: habit spreading; fairly vigorous; very productive.

FRUIT: size small; form roundish; cavity narrow, abrupt; stem short and stout; suture scarcely traceable; bright red, turning dark red; bloom thin.

FLESH: cling; color yellow; texture tender, juicy; flavor pleasant.

QUALITY: dessert, fair; cooking, fair.

VALUE: market, second class.

SEASON: mid-August.

MILTON.

A seedling of Wild Goose; valuable for its hardiness.

ORIGIN: Iowa.

FRUIT: size medium; roundish oval or oblong; color dark red with numerous dots.

FLESH: texture melting, firm.

QUALITY: fair.

VALUE: market, second class.

SEASON: a week earlier than Wild Goose.

MONARCH.

A profitable commercial variety; a good shipper.
ORIGIN: England.
TREE: a vigorous grower; habit upright; an early, regular and abundant bearer; class Domestica.

MONARCH.

FRUIT: large; roundish ovate; color dark purple with heavy bluish bloom; stalk about seven-eighths of an inch long, stout, in a moderately deep cavity; suture broad, shallow.
FLESH: color yellow; texture firm; flavor sweet, slightly acid.
QUALITY: very good for all purposes.
VALUE: market, first class; canning, first class.
SEASON: late September.

MAYNARD.

A Japanese variety highly advertised, but not much planted in Ontario.
TREE: large, vigorous, spreading, productive.
FRUIT: medium size, roundish, dark and changing to purplish black.
FLESH: reddish, tender, sweet and aromatic.
VALUE: good.
SEASON: early, follows Climax.

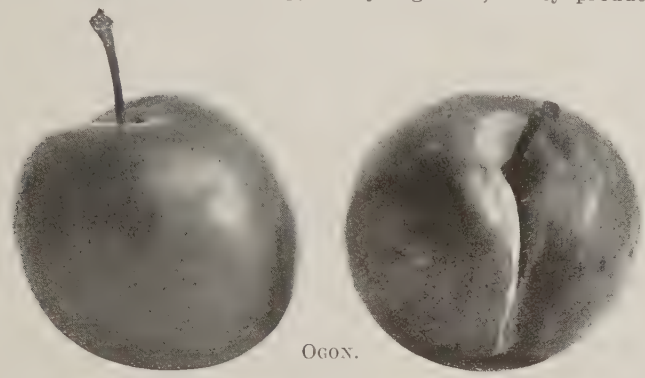
MAYNARD.

OGON.

Somewhat irregular in size, but its earliness, just following Red June and Willard, make it of value to the plum grower.

ORIGIN: imported from Japan by H. H. Berger & Co., California.

TREE: class, Japan; habit, spreading; fairly vigorous; fairly productive.



OGON.

FRUIT: form roundish, irregular; size medium; color yellow; bloom slight, whitish; stem half an inch long in a deep, narrow cavity; suture deep or shallow, half round; apex blunt.

FLESH: free; color yellow; texture firm with a little juice; flavor flat.

QUALITY: poor for dessert; fair for cooking.

VALUE: market, first class.

SEASON: mid-August.

POND (*Pond's Seedling*).

A beautiful and showy plum, but not much planted in the commercial orchard; somewhat subject to rot.

ORIGIN: England.

TREE: vigorous; moderately productive.

FRUIT: size very large; form obovate tapering toward the base; skin thick, purple, with purplish bloom and numerous brown dots.

FLESH: color yellow; texture juicy; flavor pleasant.

QUALITY: very good.

VALUE: market first class, only for its susceptibility to rot.

SEASON: mid-September.

POND'S SEEDLING.

PRUNE D'AGEN.

"Medium in size obovate, somewhat necked; color reddish purple with heavy blue bloom and numerous small dots; stalk one inch long, curved, in small cavity. Flesh greenish yellow, rich, very good to best; nearly free from pit. Grown largely on the west coast for drying, but in States to the east and south to a less extent. Domestica." (*Budd.*)

PURPLE EGG (*Hudson River Purple Egg*).

A good commercial variety, especially for preserving.

ORIGIN: on the banks of the Hudson River, New York State, exact locality not known.

TREE: upright, vigorous grower, hardy and very productive.

FRUIT: size large; form ovate, often necked; color of skin, dark, rich red to purple; stem long in a deep cavity; suture shallow; bloom thin; clings to stone.

FLESH: color, greenish yellow; texture firm; flavor brisk acid.

QUALITY: dessert, poor; cooking, very good.

SEASON: late September.

PRINCE OF WALES.

TREE: large, vigorous, slightly vasiform, open-topped, hardy, very productive.

FRUIT: late, season short; one and five-eighths inches by one and one-half inches in size, roundish oval, halves equal; cavity narrow, abrupt; suture a line; apex roundish; color reddish purple, overspread with thick bloom; dots few, large, often tinged red, conspicuous; stem thick, one-half inch long, pubescent, adhering well to the fruit; skin tough, separating readily; flesh golden yellow, juicy, tender, sweet, mild; good; stone semi-free or free, seven-eighths inch by five-eighths inch in size.

PRINCE OF WALES.

QUACKENBOSS.

A good market plum; one of the best for distant shipment.
ORIGIN: at Albany N.Y.; introduced by Mr. Quackenboss, of Greenbush, N.Y.
TREE: very vigorous; habit upright; hardy; fairly productive.

QUACKENBOSS.

FRUIT: large; form roundish oval; color dark purple, with blue bloom; stem of medium length, set in a very slight cavity; suture traceable.
FLESH: semi-cling; color greenish; texture rather firm; flavor sprightly.
QUALITY: dessert, fair; canning, good.
VALUE: market, first class.
SEASON: late September.

RED JUNE (*Red Nagate of Thomas*).

RED JUNE.

The earliest good plum grown.

ORIGIN: Japan; introduced to the public in 1893 by Stark Bros., Louisiana, Mo., who gave it the name of Red June. The Japanese name was "Shiro Smomo."
TREE: hardy and vigorous, forming a symmetrical top; an early and fairly abundant bearer; should be planted with such varieties as Burbank, Abundance or Chabot, to secure cross fertilization.

FRUIT: form, roundish conical; apex pointed; size, medium; suture distinct; skin thick, tenacious; color bright red, deepening to dark red when fully ripe, with light bluish bloom; stem one-half an inch long; cling.

FLESH: color yellow; texture somewhat juicy, moderately firm; flavor agreeable.

QUALITY: dessert, good; cooking, very good; an excellent substitute for the Damson.

VALUE: market, first class. The earliest plum of value on early locations.

SEASON: late July to early August.

REINE CLAUDE (*Reine Claude de Bavay. Green Gage*).

The Reine Claude and several varieties of the Green Gage type are of especial value for culinary purposes. For pies, sauce or canning purposes they seem to be growing in demand year after year and no collection of plums for the home garden is, therefore, complete without a tree or more of this or some other variety of this family. With Ontario fruit growers, the most popular Gage is the Reine Claude de Bavay, commonly known among them as Reine Claude, which name is also an old synonym of the Green Gage. In the catalogue of the American Pomological Society it is called Bavay. The fruit of this later variety is in good demand among canners, and brings a fair price in our markets.

REINE CLAUDE.

ORIGIN: this type of plum was brought from Italy to France about the year 1500 by Queen Claudia, wife of Francis I., after whom it was named Reine Claudia. Later, some trees were brought to England by a family named Gage, but the label on these trees being lost, the gardener called them Green Gage. Hogg, the English pomologist, however, tried to prove that this plum had been introduced into England before this time under the name of Reine Claude, and hence arose considerable confusion of names.

TREE: productive; hardy, a slow grower.

FRUIT: roundish; size medium; skin greenish, yellowing towards maturity, with a thin whitish bloom and a few red dots; stem three-quarters of an inch long, set in a small, abrupt cavity; suture traceable.
FLESH: color pale green; texture melting and juicy; flavor rich, sweet and excellent; pit mostly free.
QUALITY: cooking or canning, best; dessert, very good.
VALUE: home market, first class.
SEASON: mid to late August.

SATSUMA (*Blood*).

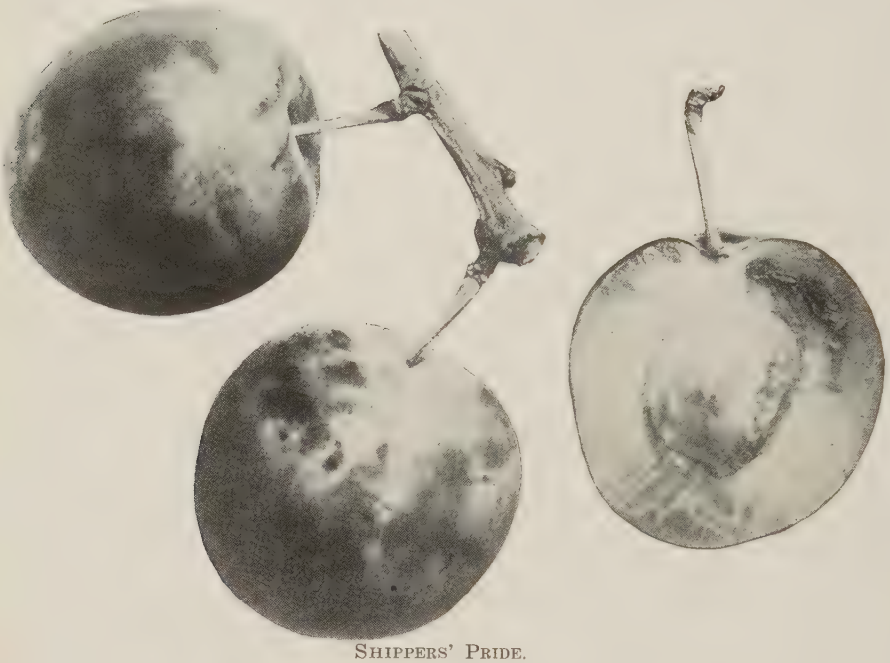
One of the most satisfactory of the Japan plums; commercially valuable in the Niagara district. Highly esteemed for canning, and for jelly.
ORIGIN: imported by Luther Burbank from Japan to America in 1886; called "Blood" from the blood-red color of the flesh.
TREE: habit spreading; fairly vigorous; ordinarily very productive; self sterile, and should be planted with other varieties.

SATSUMA.

FRUIT: oblate, slightly conical; size large; stem about three-quarters of an inch in length, stout, set in a deep cavity; suture traceable; skin thick; color dark red, with whitish bloom and many dots.
FLESH: cling; color dark red; texture firm; flavor pleasant when well ripened; a little acid.
QUALITY: cooking, very good.
VALUE: market first class.
SEASON: late September.

SHIPPERS' PRIDE (*Pride*).

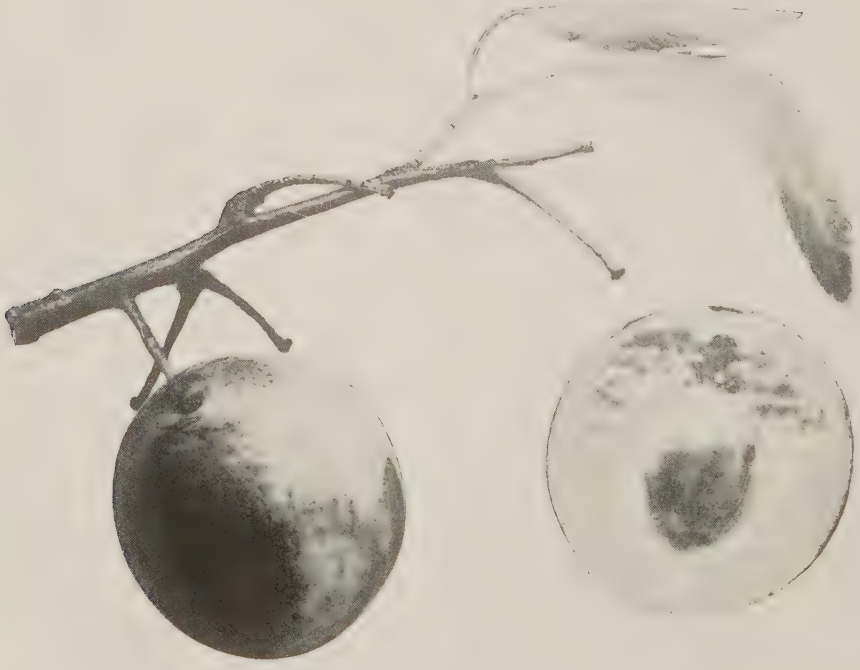
An excellent market plum; a good shipper and fine for canning;
ORIGIN: New York State.
TREE: very vigorous; very hardy; very productive.
FRUIT: size large; form roundish oval; color dark purple.
FLESH: firm, juicy; flavor sweet.
QUALITY: dessert fair; cooking, good; excellent for canning.
VALUE: market, first class, being a fine shipper.
SEASON: early to mid-September.



SHIPPERS' PRIDE.

SCHLEY.

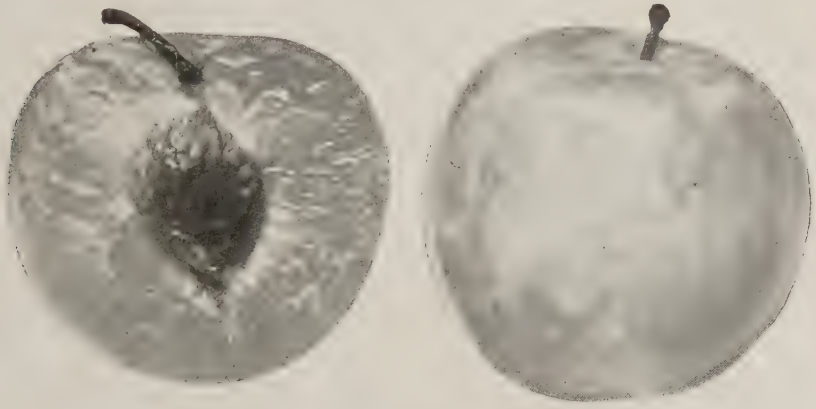
FRUIT: of medium size, roundish oval; suture slight; cavity of medium depth; bright red with numerous dots; skin tough; flesh yellow; poor; cling stone; mid-season.



SCHLEY.

SHIRO.

FRUIT: very early, season short; one and one-half inches in diameter, roundish conic, with halves equal; cavity intermediate in depth and width; suture an indistinct line; apex roundish; color light yellow, becoming deeper yellow as the season advances, occasionally with a blush of pink, with thin bloom; dots numerous, very minute, whitish, inconspicuous; stem three-eighths inch long, adhering to the fruit; skin, thin, tough,



SHIRO.

sour, occasionally cracking, separating readily, although a thin coating of flesh is left clinging to the skin; flesh light yellow, semi-transparent, the stone being faintly visible, very juicy, fibrous, somewhat melting, sweet, mild, lacks character in flavor; good; stone clinging, seven-eighths inch by five-eighths inch in size.

SHROPSHIRE DAMSON.

A small plum, very highly valued for jam and for preserves; much sought after by those who know its value.

ORIGIN: Shropshire, England.

TREE: upright, fairly vigorous, quite productive.

FRUIT: small, oval; color dark purple, with blue bloom; stalk half an inch long, no cavity; suture none.

FLESH: nearly free from stone; texture melting, juicy; flavor rich, acid.

QUALITY: dessert, fair; canning, very good to best.

VALUE: market, first class.

SEASON: late.

SIMON (*Prunus Simoni, Simonsi of Thomas, Simon's Plum*).

A distinct species of stone fruit, having characteristics of both the peach and the plum. It has been tested in Ontario since 1888, and has not realized the expectations of planters who were led to expect in this fruit a substitute for the peach where the latter fruit was uncertain. It has proven itself worthless in the commercial orchard, and valuable only as a curiosity.

ORIGIN: northeastern China, introduced to France by Eugene Simon and disseminated by Simon Bros., of Metz, Alsace. Fruited at Cornell University in 1886, and at St. Catharines, Ont., in 1887. It was placed in the plant distribution list by the Fruit Growers' Association in 1890.

TREE: upright, slender, lacking in vigor, not productive.

FRUIT: large; form round transversely and flattened longitudinally; color dark maroon, with a perceptible bloom; stalk half an inch long, stout, set in a deep cavity; suture distinct; stone smooth, clings tightly to the flesh.

FLESH: orange color; texture, tough and juicy; flavor often bitter, sometimes fairly agreeable.

QUALITY AND VALUE: very poor.

SEASON: early August.

ADAPTATION: to the peach sections.

SMITH ORLEANS.

"Fruit large to very large, oval, rather widest toward the stalk, a little irregular, with a strongly marked suture on the side; stalk quite small and slender, a little more than half an inch long, inserted in a deep, narrow cavity; skin reddish purple; covered with a deep blue bloom; flesh deep yellow, a little firm, very juicy, with a brisk rich vinous flavor, and adheres to the stone; good to very good; late August, growth very vigorous." (*Downing.*)

STODDARD.

"Fruit large to very large; roundish; cavity narrow, shallow; suture a distinct line; apex rounded; color deep yellow, almost entirely covered with deep purplish red; dots fairly numerous, small yellow; bloom light, skin thick, tough, slightly astringent; flesh deep yellow, juicy; stone medium size, broad, flat, cling; sweet, good rich flavor; quality very good. Season late September. One of the largest and best flavored Americana plums." (*Macoun.*)

STODDARD.

VICTORIA (*Sharp; Sharp's Emperor*).

A fine dessert plum for the amateur's garden. It has been long known as Victoria, and indeed by no other name in Ontario.

ORIGIN: Sussex, England.

TREE: vigorous and productive.

FRUIT: size large, form oval; suture distinct; color of skin light reddish-purple; stem nearly one inch long in a moderately deep, abrupt cavity; dots whitish and pinkish; cling stone.

FLESH: yellow; flavor pleasant.

SEASON: early in September.

QUALITY: very good.

ADAPTATION: considered a success at the Lake Huron station, in Bruce County.

VICTORIA.

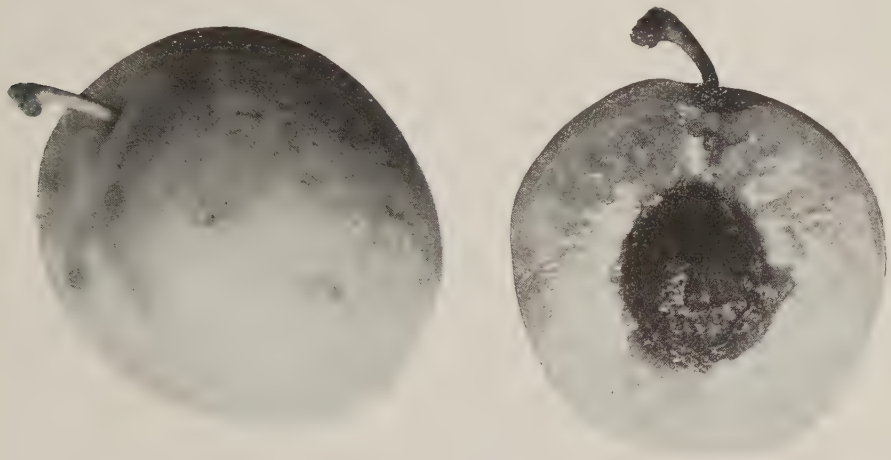
WASHINGTON.

Not productive enough, nor good enough a shipper to be popular in the commercial plum orchard; but, on account of its large size, beauty and excellence of quality, a universal favorite for the dessert table.

ORIGIN: New York City, as a sucker from a grafted tree, which was purchased from a market woman by a Mr. Balmer. He first fruited it in 1818, and the plum was at first called Balmer, after him.

TREE: a strong, vigorous grower; fairly productive; foliage remarkably large, broad and glossy.

FRUIT: size large; form round oval; suture traceable, very distinct near the stem; color dull yellow, changing to deep yellow, marked with crimson dots and covered with pale bluish, grey bloom; stem three-quarters of an inch long, set in a wide, shallow cavity.



WASHINGTON.

FLESH: yellow; texture firm; flavor rich, sweet and luscious.
QUALITY: dessert, very good; cooking, very good.
VALUE: home market, first class.
SEASON: late August.

WHITAKER.

The best of its class fruited at the St. Lawrence station.

ORIGIN: a seedling of Wild Goose; raised by J. T. Whitaker, Texas; closely resembling its parent.

TREE: vigorous; rapid grower; spreading habit; healthy; foliage bright green, free from shot-hole fungus; late bloomer; class Chickasaw.

FRUIT: oval; size medium; cavity shallow; suture traceable; color bright red, with many white dots and thin bluish bloom; skin thin.

FLESH: color yellow; texture moderately firm, juicy; flavor sweet and good.
QUALITY: good.
VALUE: market, second class.
SEASON: September.

WICKSON.

Among the largest and finest of the Japan plums, but not productive enough to be profitable as a market variety. Introduced with a great flourish and largely planted, but in most cases it has proven a disappointment.

ORIGIN: grown from seed of Kelsey, by Luther Burbank, of Santa Rosa, Cal.; from its habit the tree appears to have some relation to Prunus Simoni.

TREE: habit very upright, bearing fruit mostly on fruit spurs; hardy; blooms early and abundantly, but sets very little fruit; should be planted with such productive sorts as Burbank for cross pollination; class Japanese.

FRUIT: form oblong conical, apex a point; size large to very large; skin thick; color yellow, mostly covered with rich brownish red; bloom thin; stem stout; cavity large, deep, abrupt; suture very decided from base to apex.

FLESH: semi-cling; color yellowish, translucent with yellow veins; texture firm for shipment, but tender and juicy when fully ripe; flavor sweet, rich, aromatic.

QUALITY: very good for all purposes.

VALUE: market, first class. Not prolific enough in Ontario.

SEASON: mid-September.

WILD GOOSE.

"Fruit oval; size medium to large; cavity shallow; stem medium long; suture a line; color bright, clear red; dots many, white, conspicuous; bloom thin, bright bluish; skin thin, but rather tough; stone small to medium, oval, pointed, cling; flavor sweet; quality fair to good; season early; origin Columbia, Tennessee." (*Waugh.*)

WILLARD.

A profitable market plum on account of the early season of ripening its fruit, but too poor in quality to receive much commendation, and not very productive.

ORIGIN: Japan.

TREE: vigorous; rather spreading in habit; fairly productive.

FRUIT: size medium, sometimes above; form roundish oblong; color greenish, partly overspread with dull red; suture clearly traceable; apex elevated, not pointed; bloom thin, whitish.

FLESH: yellowish; moderately firm; not very juicy; semi-cling; flavor poor.

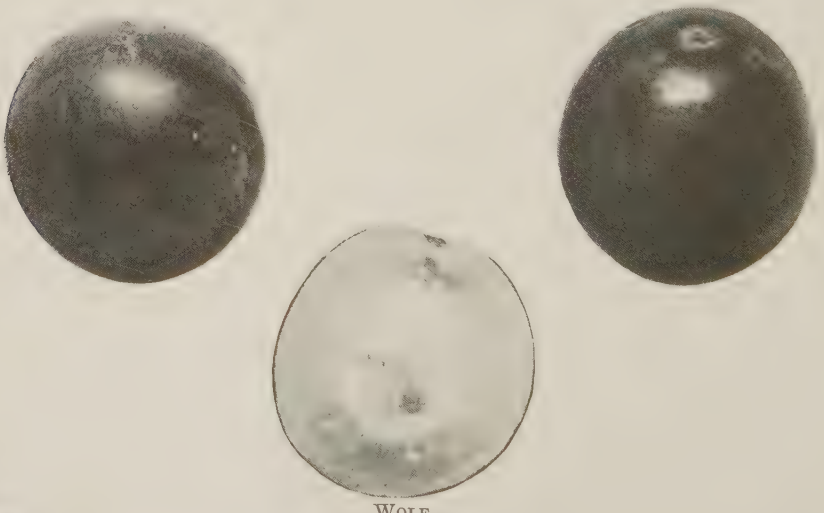
QUALITY: dessert poor; cooking fair.

VALUE: first class in its season for market.

SEASON: early August.

WOLF.

"Fruit large, roundish; cavity narrow, shallow; suture shallow, fairly distinct, not depressed; apex rounded; color deep red; dots fairly numerous, small, yellow, distinct;



WOLF.

bloom moderate; skin thick, tough; flesh deep yellow, juicy, sweet, rich, good flavor; stone above medium size, outline oval, considerably flattened, cling; quality good; season early to mid-September. One of the best." (*Macoun.*)

WYANT.

"Fruit large, oblong, flattened; cavity narrow, deep; suture a distinct line; apex almost pointed; color deep red; dots numerous, small, purple; bloom medium; skin rather thick, somewhat tough, astringent; flesh deep yellow, moderately juicy; fairly sweet; stone large, much flattened, oval, semi-cling, almost free; quality medium. Season mid-September. Quality not good enough. This plum is highly recommended in the Western States, but has not proven so good as some others here (Ottawa)." (*Macoun.*)

YELLOW EGG (*White Magnum Bonum*).

A profitable commercial variety, on account of its large size and fine appearance, but susceptible to the plum rot and inclined to drop before maturity. Good for canning purposes.

ORIGIN: Europe.

TREE: vigorous, spreading, and very productive.

YELLOW EGG.

FRUIT: size large to very large; form egg shaped with distinct suture on one side; skin thick, adherent to flesh; color yellow with whitish bloom; stalk nearly an inch long, inserted in a small cavity, with a fold about its base; pit long, pointed, cling.

FLESH: yellow; texture firm, juicy, coarse; flavor subacid, becoming sweet when very ripe, but ordinary.

QUALITY: dessert, poor; cooking, good.

VALUE: home market, first class.

SEASON: late August.

THE QUINCE

As there is only a limited demand for quinces in Canada, this fruit is not largely grown. It is somewhat tender, but can be grown commercially wherever the peach succeeds. Some quinces are, however, produced for home consumption as far east as the Bay of Quinte.

The culture of the quince is somewhat similar to that of dwarf pears. The soil most suitable is a friable clay loam, well drained. Three year old trees are planted from fourteen to fifteen feet apart each way. The trees are pruned with a somewhat open top as the dwarf pear, the head starting from near the ground. If the trees make rapid growth severe heading-in should be practised to get stockier trees and to have the fruit better distributed. Good cultivation is necessary in the production of the quince, as with other fruits.

The quince makes a handsome ornamental tree where it can be grown, the abundant white bloom in the spring and the golden fruit in the autumn rendering it a striking object wherever planted.

VARIETIES RECOMMENDED.

General List, approved by the Board of Control.

Fuller, Orange (the leading market variety in Ontario), Champion (for Southern Ontario only, as it ripens too late for other sections).

DESCRIPTION OF VARIETIES

BENTLEY.

A variety grown largely for market in Maryland, and in Ontario it is gaining in favor.

TREE: thrifty; productive.

FRUIT: large; form roundish; skin yellow with heavy down.

QUALITY: excellent.

VALUE: market, first class.

SEASON: early October.

CHAMPION.

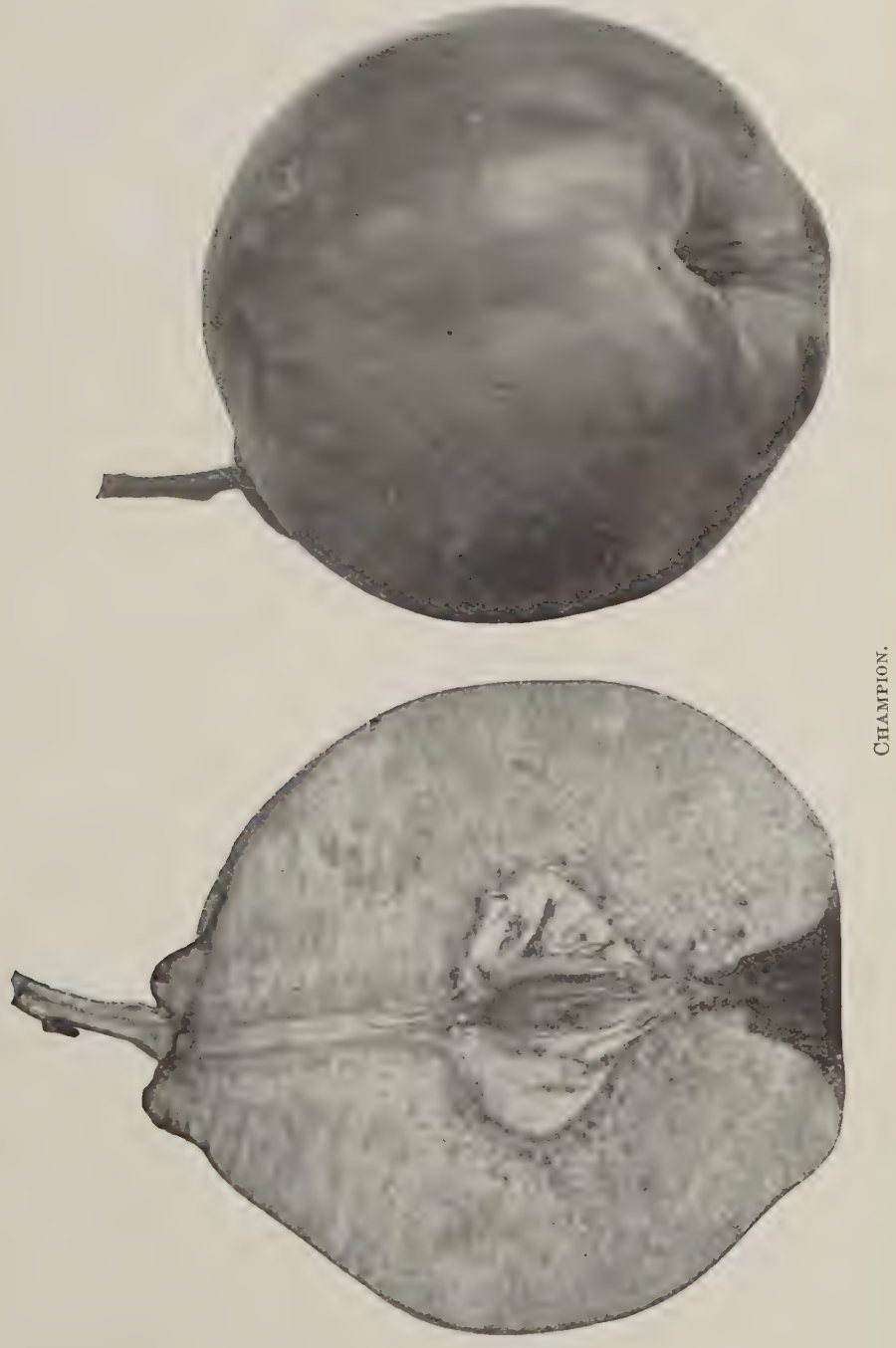
An American quince of recent origin.

TREE: an upright grower, taller than the Orange.

FRUIT: large, distinctly pear-form, furrowed about the top, generally remaining greenish yellow upon the tree; conspicuously covered with a floccose wool or fuzz.

SEASON: mid-winter.

ADAPTATION: ripens well in Southern Ontario, but would be too late farther north.



CHAMPION.

PLATE

FULLER.

ORIGIN: named after Mr. A. S. Fuller, of Ridgewood, N.J., who noticed it fruiting on a neighbor's grounds in about the year 1870, took some cuttings and introduced it to public notice.

TREE: a good grower and showy both in fruit and flower.

FRUIT: large; distinctly pyriform in shape, sometimes with an elongated neck, somewhat ribbed; color rich yellow; calyx set in a deep, wide basin.

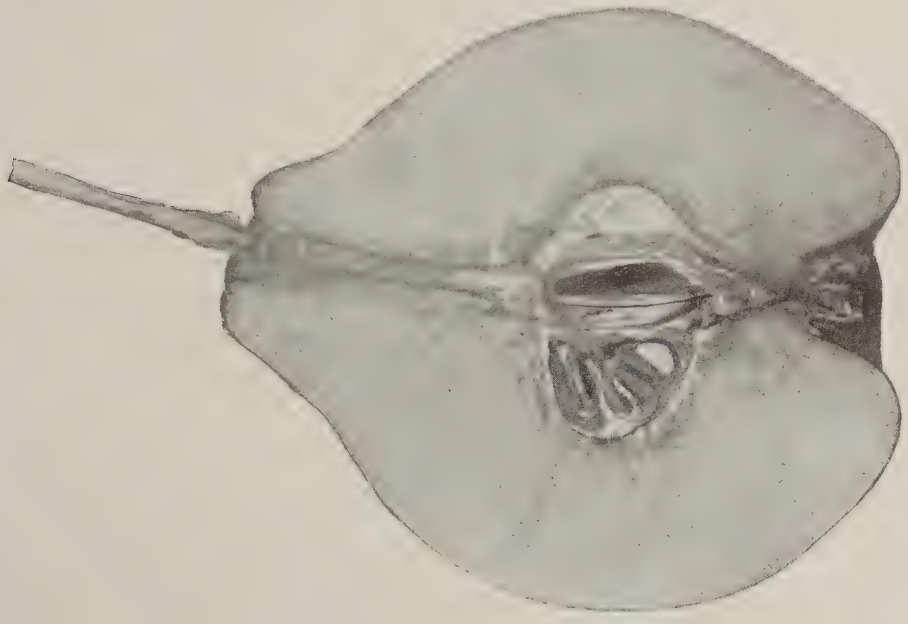
FLESH: tender in texture; flavor good.

VALUE: market, first class.

SEASON: late September.

ORANGE (*Apple*).

The leading market variety of quince in Canada. Previous to 1870, this and the Angers were the only varieties of quinces known in Ontario, the former as a stock for budding dwarf pears, and the latter as a standard market variety. The Orange quince succeeds admirably in the Niagara peninsula, ripening well, taking on a beautiful rich golden color, and reaching a fine, large size, either on clay or sandy loam. In old days this variety brought $6 or $7 per barrel in Toronto market, but the prices are now much lower.



ORANGE.

ORIGIN: Southern Europe.

TREE: a slow grower, bushy, seldom attaining a height of more than twelve or fifteen feet; hardy, will endure neglect but responds well to good cultivation and manure; delights in moist land, without standing water; fairly productive.

FRUIT: large and weighing from eight ounces to a pound; form somewhat like an apple, but with protuberance about the stem instead of a depression; skin golden yellow at maturity, with often a little greenish or russet color about the stem, which is set in a narrow cavity; calyx large segment, which are leaf like, in a large, deep, corrugated basin.

FLESH: tender in texture and good in flavor.

VALUE: limited demand in Canadian markets.

SEASON: late September to early October.

2. The Grape.

There is no more popular fruit than the grape, and, owing to the rapid increase in population during recent years, the demand for grapes is constantly growing. For this reason, the planting of grapes, which was, in a large measure, suspended for a few years, is steadily increasing, many vineyards now being established annually.

The grape requires a comparatively dry hot season for the development of good flavor and the perfect ripening of the fruit, and as most of the cultivated varieties will not stand very low temperatures, unless protected, the grape succeeds best in the most southern parts of the Province, the commercial vineyards being confined almost entirely to the Niagara Peninsula, and to the district bordering Lake Erie. The grape can, however, be grown successfully over a much wider area than this, and where the summer temperature is fairly high and spring and early autumn frosts are rare, large quantities of grapes are grown for home consumption. Hence the early varieties of this fruit may be ripened pretty generally over the Province as far north as latitude 45 degrees and probably further.

A southern or south-eastern slope, if it can be procured, is preferable for the grape, as this fruit will ripen quicker with this exposure, but the site is not so important in the best grape districts as it is further north. A site should, however, be chosen which will not be subject to local frosts. In the north, a sandy loam is much to be preferred, as, if well drained, it will be the warmest, and all the heat that can be obtained is needed. In the warmer portions of the Province, grapes succeed admirably on the clay loams, and, if well drained, these are considered the best. The soil should be thoroughly prepared as for other fruits. The best vines for planting are two years old, but some strong growing varieties make good plants in one year. Strong growing varieties require more space in a vineyard than those less vigorous, but an average distance of ten feet apart each way is perhaps the most satisfactory. The plants should be set in a little deeper than they were in the nursery. With grapes, it is better to err on the side of deep than shallow planting. The young vine should be cut back to within one or two buds when set. To encourage strong growth, cultivation should be thorough in the vineyard until the vine begins to bear well. At the close of the first season and before the growth begins the following spring, the vine should be again pruned back to one or two strong buds. During the second season, only two canes are permitted to grow, in order that these may become as strong as possible. Before growth begins in the third year, it will be necessary to put down the trellis. If the Kniffen system is adopted, two wires will be sufficient, but if other methods are followed, three are usually necessary. The Kniffen system of training is more general in the grape districts than any other, mainly for the reason that by this method the least labor is involved. If two canes were left during the second season's growth, the weaker is removed, the other is tied upright to the two wires, the lower one being about 3 feet 6 inches from the ground, and the upper about 2 feet higher. Shoots will be thrown out along this main trunk, all of which are allowed to grow throughout the season.

Before growth begins in the spring of the fourth season, all the canes are cut away except four. Two of these are extended, one on each side of the main trunk along the upper wire and tied to it, and two on each side of the main trunk along the lower wire, at the same time heading back the upper canes to eight or nine buds and the lower to six or seven. No summer pruning is usually practised with this system, the growing shoots falling over the wires and attaching themselves there, often making very rampant growth, so much so that the tips are sometimes lopped off with a pruning hook.

The vine should bear a full crop this season, which is the fourth from planting. Before growth starts in the fifth season, all canes are again removed, except four, and as these could not very well be obtained in line with the wires, if taken from the main trunk, the canes are utilized which spring from the base of the canes which were left the year before. This same system is adopted year after year. In time, such a large stub develops at the point where the new canes are taken each year that it becomes

necessary to remove these and take new canes from the main trunk. A good supply of new wood is required each year in grape growing, as fruit is produced only near the base of the previous season's growth. About forty strong buds or even less are sufficient to give a profitable crop of most varieties.

For the north, quite a different system is necessary, as the vines have to be covered with the soil in the winter to protect them. On this account, the arms have to be trained low, so that they may be covered easily. The best system which has been found where such conditions prevail in Ontario is a modification of the "High Renewal." By the "High Renewal" system, new wood is obtained from near the ground every year and several canes trained in a somewhat fan shape. This system is adopted in some parts of New York State, where vines do not have to be covered. By a modification of this system, two arms are left for two or three years. Three wires are required, the lowest being about eighteen inches from the ground, and the others about two feet apart. The two canes which have been made during the second season's growth, as previously described, are both saved. They should start from the main stem as near the ground as possible, and are tied to the wire in opposite directions. The shoots which are made the third season are tied upright to the wires and spread as evenly as possible. Lateral shoots should be removed. Before winter, all the canes that season should be headed back to within one or two buds of the two main arms, and just before winter sets in, they should be bent down and covered with a few inches of soil. In fact, the vine should be covered each winter from the time it is set. Vines should be kept covered in the north as long as possible to prevent injury from spring frosts. At Ottawa, the vines are not uncovered until the end of the first week or beginning of the second week in May.

In the fourth season after planting, the shoots are again trained upright and tied to the wires. Laterals are removed and any other shoots which make the vine so crowded that the fruit will not obtain plenty of light and sunshine. The mistake is often made of leaving too many shoots to grow, thus preventing the perfect ripening of the fruit. Forty strong shoots are quite sufficient to produce a good crop of fruit, although some varieties will stand a few more.

As arms get older, they become more difficult to lay down, hence it is found advisable to remove the arms every two or three years, and replace them with new ones. The arms may be renewed in alternate years, and this is often desirable, as the buds on one arm are sometimes destroyed by winter, or by spring, frosts The only important difference between this system and the horizontal arm is that in this the arms are not permanent. It resembles the "High Renewal" from the fact that new wood is obtained frequently from the main stem near the ground.

Grapes require considerable potash, hence fertilizers containing a high percentage of this should be used rather than nitrogenous manures. Cover crops will usually supply all the nitrogen that is required.

Grapes should not be picked until they are quite ripe, as they do not ripen after they leave the vine. It is believed that the consumption of grapes would be much greater in the cities and towns if fruit growers would not pick and ship the fruit when it is green.

VARIETIES RECOMMENDED.

GENERAL LIST, APPROVED BY THE BOARD OF CONTROL.

Black: Moore, Campbell, Worden, Concord, Wilder.
Red: Delaware, Lindley, Agawam, Vergennes.
White: Diamond, Niagara.

FOR NORTHERN SECTIONS:

Black: Champion, Moore, Campbell, Worden.
Red: Moyer, Brighton, Delaware, Lindley.
White: Winchell, Diamond.

DISTRICT LISTS.

NIAGARA DISTRICT.

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment.)

EGBERT M. SMITH, Winona.

Black: Champion, Worden, Wilder, Concord.
Red: Delaware, Lindley, Agawam, Vergennes.
White: Diamond, Niagara.

FONTHILL DISTRICT.

(Including Townships of Pelham, Stamford, and Thorold.)

G. C. BROWN, Fonthill.

Moore, Worden, Niagara, Delaware, Concord, Lindley.

BURLINGTON-OAKVILLE DISTRICT.

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto.)

A. W. PEART, Burlington.

Black: Moore, Worden, Concord.
Red: Moyer, Delaware, Lindley, Massasoit.
White: Diamond, Niagara.

W. G. HORNE, Clarkson.

Moore, Worden, Concord, Delaware.

ESSEX PENINSULA.

(Including Essex, Kent and Pelee Island.)

J. L. HILBORN, Leamington.

Black: Champion, Moore, Concord.
Red: Brighton, Vergennes, Catawba.
White: Diamond, Niagara.

LAKE HURON DISTRICT.

(Including Counties of Huron and Bruce.)

D. F. HAMLINK, Goderich.

Champion, Moore, Worden, Niagara, Concord.

GEORGIAN BAY DISTRICT.

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay.)

J. G. MITCHELL, Clarksburg.

Black: Champion, Campbell, Worden.
Red: Delaware, Brighton, Vergennes, Salem.
White: Winchell, Diamond, Niagara.

LAKE SIMCOE DISTRICT.

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe.)

G. C. Caston, Craighurst.

Campbell, Moyer, Moore, Diamond, Winchell.

GUELPH DISTRICT.

(Including the high inland counties of south-western Ontario. *i.e.*, Wellington, Waterloo, north-western section of Perth, south part of Grey, Dufferin, and north-west section of Peel and Halton.)

Prof. J. W. Crow, O.A.C., Guelph.

Black: Moore.
Red: Moyer.
White: Winchell.

LAKE ONTARIO DISTRICT.

(Including the southern portions of the Counties bordering on the Lake Ontario shore from Toronto to Trenton.)

A. B. Arnott, Trenton.

Black: Moore, Worden, Concord.
Red: Brighton, Lindley, Agawam, Massasoit.
White: Niagara, Pocklington.

OTTAWA DISTRICT.

(Including the Ottawa Valley and the eastern portion of the Province, not elsewhere enumerated, south of latitude 46 deg.)

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Black: Early Daisy, Mamito, Worden, Merrimac, Wilder.
Red: Moyer, Brighton, Delaware, Lindley.
White: Winchell, Diamond.

ALGOMA DISTRICT.

(Including the Islands of Manitoulin and St. Joseph, and a limited portion of the northern and eastern shore of the Georgian Bay.)

Chas. Young, Richard's Landing.

Campbell, Moore, Winchell, Janesville.

DESCRIPTION OF VARIETIES.

AGAWAM. (*Rogers' 15.*)

One of the leading varieties for profit, but in some sections subject to mildew and rot.

ORIGIN: by E. S. Rogers, Salem, Mass.
VINE: a strong grower; very productive; self fertile; wood, long jointed, stout, should have long pruning.
BUNCH: large, compact, shouldered.
BERRY: large; skin, thick; color, brownish red.
FLESH: tender; flavor, sweet, sprightly, very good.
QUALITY: dessert, very good.
VALUE: market, first class.
SEASON: soon after that of Concord.

ALICE.

A good grape, but a little late to be very popular for market purposes.
ORIGIN: New York State.
VINE: very vigorous; productive.
BUNCH: roundish; shouldered; compact.
BERRY: size, small to medium; round; color, dark wine, with light bloom.
FLESH: tender pulp, juicy; color, light green; flavor, vinous, aromatic, pleasant.
QUALITY: dessert, good.
VALUE: second class for market.
SEASON: early October.

BACCHUS.

A good wine grape.
ORIGIN: seedling of Clinton, raised by J. H. Ricketts, Newburgh, N.Y.
VINE: vigorous; free from mildew; productive.
BUNCH: size, medium; compact; shouldered.
BERRY: size, small; round; black, with blue bloom.
FLESH: texture, juicy; flavor, sprightly, superior to Clinton.
QUALITY: dessert, fair.
VALUE: second rate for market.
SEASON: late; cannot be depended upon to ripen north of lake Ontario.

BARRY. (*Rogers' 43.*)

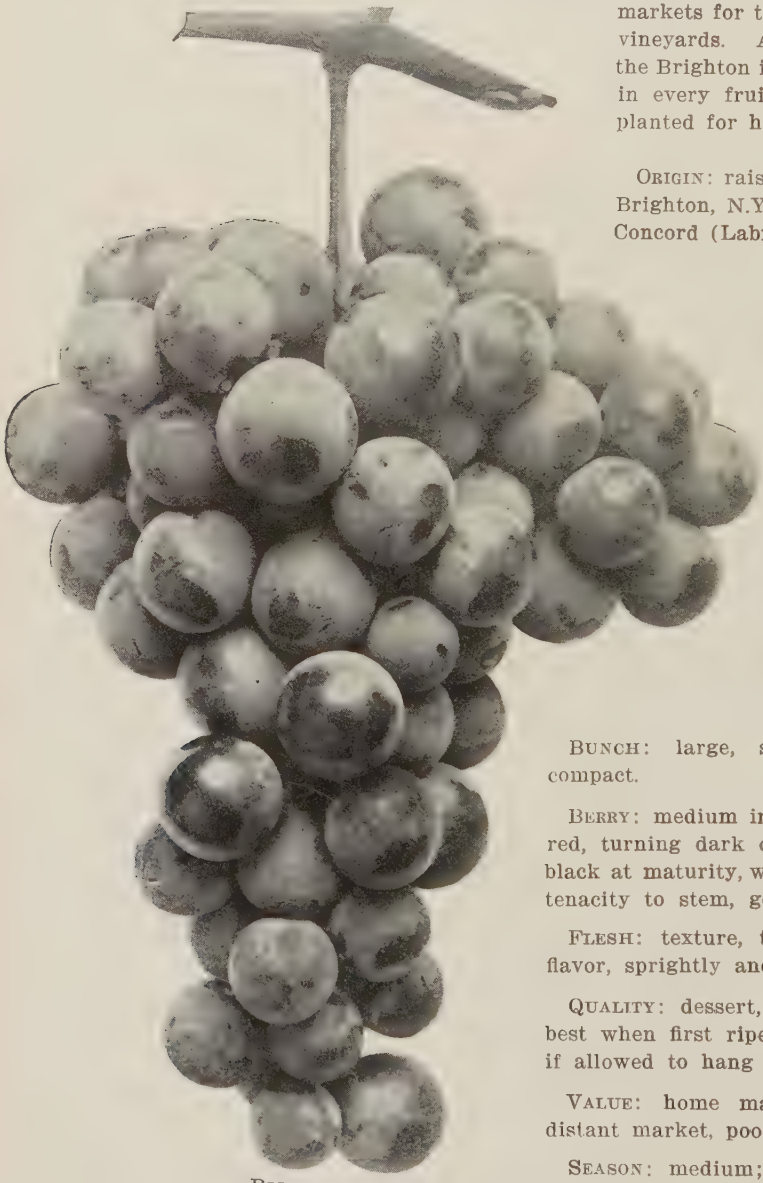
An excellent exhibition grape; one of the most attractive of Rogers' hybrids; but not equal to Wilder for the commercial vineyard.

ORIGIN: a hybrid from Black Hamburgh and Mammoth Sage, raised by E. S. Rogers, of Salem, Massachusetts.
VINE: vigorous; healthy; productive; self sterile and needs mixed planting; sometimes drops its leaves before maturity of the fruit.
BUNCH: medium; form, short, compact, rather broad.
BERRY: large; roundish; color, black, with blue bloom.
FLESH: tender; flavor, sweet, pleasant.
QUALITY: dessert, good.
VALUE: market, first class; a good shipper.
SEASON: mid September to October.

AGAWAM.

BRIGHTON.

The fine size of its bunches and the excellence of its flavor as a dessert grape gave promise, in its first introduction, that the Brighton would be a popular commercial grape in Ontario; but in this we have been disappointed, because of its susceptibility to mildew, and its poor shipping quality. The latter point is of importance to our Ontario fruit growers, who look forward to the great North-west as one of the best markets for the product of their vineyards. As a dessert grape, the Brighton is worthy of a place in every fruit garden which is planted for home uses.



BRIGHTON.

ORIGIN: raised by Jacob Moore, Brighton, N.Y.; a cross between Concord (Labr) and Diana Hamburg (Vinifera).

VINE: vigorous; semi-hardy; productive; somewhat subject to mildew; leaves, large, thick, dark green; pollen, sometimes defective, and the vine should have other varieties which are good pollenizers planted near it.

BUNCH: large, shouldered, fairly compact.

BERRY: medium in size; color, light red, turning dark crimson or almost black at maturity, with purple bloom; tenacity to stem, good; skin, tender.

FLESH: texture, tender and juicy; flavor, sprightly and very pleasant.

QUALITY: dessert, very good, at its best when first ripe, but deteriorates if allowed to hang on the vine.

VALUE: home market, very good; distant market, poor.

SEASON: medium; not a long keeper.

CATAWBA.

One of the best of wine grapes, and highly esteemed for dessert.

ORIGIN: a native of North Carolina, and takes its name from the Catawba river.

VINE: vigorous; productive; succeeds well in sandy loam; canes, long, with few laterals.

BUNCH: medium sized; moderately compact; shouldered.

CATAWBA.

BERRY: large; round; deep red, with lilac bloom; skin, moderately thick.

FLESH: texture pulpy, juicy; flavor, sweet, aromatic, musky.

QUALITY: dessert, very good; wine, best.

VALUE: market, first class, when well ripened.

SEASON: late; does not always attain full maturity, even in the southern parts of the Province.

CAMPBELL.

(*Campbell's Early.*)

This grape is claimed to be an improved Concord, and is very promising as an early market variety.

ORIGIN: Ohio, by G. H. Campbell; the product of different crosses from Hartford, Concord, and Moore's Early, through Muscat Hamburgh. Introduced in 1896.

VINE: vigorous, healthy and productive.

BUNCH: large shouldered.

BERRY: large; skin, black, with thin blue bloom, tough; flavor, rich and sweet, without foxiness; flesh, meaty, sweet, tender; seeds, small, separate easily from the pulp; hangs well to vine.

QUALITY: fine for dessert.

VALUE: first class for market.

SEASON: about the same as that of Moore.

CAMPBELL.

PERKINS.

An early market grape, healthy in vine and fruit, and a sure cropper.
ORIGIN: Massachusetts.
VINE: vigorous; hardy; productive and free from disease.
BUNCH: size, medium; shouldered; compact.
BERRY: size, medium; form, roundish oblong; color, amber, with whitish bloom.
FLESH: texture, pulpy, juicy, not melting; flavor, sweet.
QUALITY: dessert, poor; wine, good.
VALUE: market, second class; a poor keeper.
SEASON: early.

CHAMPION.

Widely planted for market because of its early coloring and apparent early ripening, but so sour and so poor in quality, as usually sold on the market, that it has seriously lessened the demand for Concord grapes, which follow it in season.

ORIGIN: New York State, about 1873; first sold as Talman's Seedling.

VINE: vigorous; healthy, not subject to mildew; very productive.

BUNCH: size, medium; shouldered.

BERRY: size, medium; form, round; color, bluish black; pulpy; acid until very ripe; skin, thick.

CHAMPION.

QUALITY: dessert, very poor.

VALUE: market, fair, sells well on its outside appearance before better flavored kinds are on the market.

SEASON: a week or ten days earlier than the Concord, but often well colored two weeks earlier.

CONCORD.

The principal out-door grape grown for market in the Province of Ontario. Probably more than half the vines in the large commercial vineyards of the Niagara district, as well as in Essex and other parts of southern Ontario are of this variety.

The reason of this is (1) its comparative freedom from mildew, (2) its vigor of vine, (3) its productiveness. Four tons to the acre is not an uncommon yield, so that, even when it sells as low as 1½ cents per pound, there is yet a fair return for the investment.

ORIGIN: Concord, Mass., by E. W. Bull; first exhibited by him in 1853.

VINE: hardy, healthy, strong, vigorous grower, very productive, resists both insects and fungi well.

BUNCH: large, shouldered, fairly compact, five to six inches in length.

BERRY: large, round, black, covered with heavy blue bloom; skin, medium thickness, tender, sometimes cracks open; flesh, pulpy, tender, moderately juicy; flavor, sweet, when fully mature, appetizing.

QUALITY: dessert, fair.

VALUE: near market, first class; distant market, second class.

SEASON: mid September to October; not a good keeper.

ADAPTATION: general in grape districts.

CONCORD.

DELAWARE.

Universally acknowledged to stand at the head of all American grapes in point of quality. For the home garden, a few vines of this variety are indispensable, for it is the most excellent of dessert varieties. It is also one of the highest priced grapes in our markets, often bringing more than double the price of the Concord. It is, however, not very much grown in our commercial vineyards, because the foliage is badly subject to thrip, and the yield is only moderate. On rich, deep soils, well drained, however, with high cultivation, thinning and close pruning, it is productive and profitable. It should be planted much closer than the Concord. Vines of the latter variety are usually planted ten feet apart, while the Delaware may be set five or six feet apart.

ORIGIN: unknown. Name from Delaware, Ohio, where in 1855 it was first brought into notice, though not disseminated until ten years later. It was first found in a garden in Frenchtown, N.J. The Bushberg Catalogue thinks it a natural cross between Labrusca and Vinifera, a native American and a European variety.

VINE: moderate grower; foliage, delicate, subject to thrip; wood, slender, hardy; a regular, sometimes an abundant, bearer.

BUNCH: small, compact, usually shouldered.

BERRY: small; round; skin, thin; color, a beautiful light red, with whitish bloom, translucent; pulp, sweet, sprightly, aromatic; juice, abundant, sweet, vinous.

DELAWARE.

QUALITY: dessert, good.

VALUE: market, first class.

SEASON: September.

ADAPTATION: general throughout the grape sections.

DIAMOND. (*Moore's Diamond.*)

A grape that is growing in popularity, and which succeeds in sections farther north than the Niagara.

ORIGIN: Brighton, N.Y., in 1873, by Mr. Jacob Moore, from seed of Concord, fertilized with Iona; just one year after the Niagara was originated at Lockport.

VINE: vigorous and productive, though not equalling the Niagara; foliage much like that of one of its parents, the Concord.

DIAMOND.

BUNCH: large, compact and shouldered.

BERRY: adheres firmly to the stem; color, greenish white, yellowing slightly at maturity; pulp, tender; flavor, juicy, sweet and good.

QUALITY: dessert, very good.

SEASON: about one week in advance of the Concord.

ADAPTATION: worthy of trial generally.

EARLY OHIO.

An early market grape.
ORIGIN: a chance seedling raised by R. A. Hunt, Euclid, Ohio.
VINE: healthy; vigorous; productive.
BUNCH: large, compact, often shouldered.
BERRY: medium size; color, black, with heavy bloom; tenacious of stem; flavor, spicy, pleasant.
SEASON: a few days in advance of Moore.
ADAPTATION: not proven.

EARLY VICTOR.

The Early Victor grape colors very early, fully two weeks ahead of Concord, and is fit to gather about ten days before, along with Hartford and Moore Early.
ORIGIN: by John Burr, of Leavenworth, Kansas, in 1870. A seedling of the Delaware.
VINE: very vigorous, very productive and healthy.
BUNCH: shouldered and very compact.
BERRY: medium, round, black, with thick blue bloom, adheres well; pulp, tender, juicy, sweet, and agreeable; seeds, two.
QUALITY: very good for dessert, also very good for making claret wine.
VALUE: first class for home market.
SEASON: early.

EMPIRE. (*Empire State.*)

A beautiful white grape, with well formed bunches, which was introduced with great eclat, but has not become very popular in the commercial vineyards of Ontario.
ORIGIN: from seed of Hartford, fertilized with Clinton, raised by James H. Ricketts.
VINE: vigorous, healthy, and moderately productive.
BUNCH: size, large; shouldered; compact.
BERRY: medium; color, white, with thick bloom; pulp, tender, juicy, sweet, and agreeable.
QUALITY: dessert, very good.
VALUE: market, first class.

GAERTNER. (*Rogers' 14.*)

An excellent grape which is gaining in favor.
ORIGIN: hybrid between White Chasselas and a wild Labrusca.
VINE: healthy; fairly vigorous and productive.
BUNCH: medium in size; shouldered.
BERRY: size, large; round; color, light reddish brown; skin, thin.
FLESH: texture moderately tender; flavor, sweet, rich, aromatic.
QUALITY: dessert, very good.
SEASON: about with Concord.

HARTFORD. (*Hartford Prolific.*)

An old variety ripening in advance of Concord, but not popular as a market grape, because it drops its fruit so soon after maturity.
ORIGIN: raised at Hartford, Connecticut, from seed of Isabella, about 1850.
VINE: hardy; vigorous; very productive.
BUNCH: large; shouldered; rather compact.
BERRY: size, medium; round; color, black, with thin blue bloom; skin, thick.
FLESH: whitish; texture, pulpy, juicy; flavor, foxy.
QUALITY: dessert, poor.
VALUE: market, second class, because of the fruit dropping from the stems; soon shrivels.
SEASON: a week before Concord.

JANESVILLE.

Valuable only in the colder sections.
ORIGIN: Hartford x Clinton.
VINE: hardy; vigorous; productive.
BUNCH: medium; short; compact; shouldered.
BERRY: size, medium; black; skin, thick; slight blue bloom.
FLESH: pulpy; color, greenish; flavor, vinous.
QUALITY: dessert, poor.
VALUE: market, second class.
SEASON: early.

JESSICA.

An excellent dessert grape for the amateur's garden.
ORIGIN: Canada; a seedling raised by W. H. Read, of Port Dalhousie, introduced by Mr. D. W. Beadle, of St. Catharines, and first described in the *Canadian Horticulturist* for February, 1884.
VINE: fairly vigorous, hardy and healthy.
BUNCH: shouldered, compact.
BERRY: medium; color, yellowish green to white; skin, thin; pulp, tender, juicy; flavor, sprightly, aromatic, sweet and very agreeable, free from foxiness.
QUALITY: very good for dessert.
VALUE: market, too small; home uses very good.
SEASON: early.
ADAPTATION: general.

LADY.

A fine early sweet grape for the home garden; not desirable for the commercial vineyard.
ORIGIN: a pure Concord seedling, introduced by G. W. Campbell, of Ohio, in 1874.
VINE: fairly vigorous; slender; healthy; fairly productive.
BUNCH: medium in size; oblong; slightly shouldered.
BERRY: medium to large; round; greenish yellow, with white thin bloom.
FLESH: pulp, tender, juicy; flavor, vinous, sweet, slightly aromatic.
QUALITY: dessert, good.
VALUE: market, second class.
SEASON: early to medium.

LINDLEY. (*Rogers' 9.*)

A favorite red grape for both domestic and commercial purposes. Of late, however, the vine has been somewhat disappointing in productiveness.
ORIGIN: Massachusetts, by E. S. Rogers; hybrid, between Wild Mammoth grape of United States and Golden Chasselas.
VINE: vigorous; healthy, fairly productive.
BUNCH: medium in size; rather long; shouldered; loose.
BERRY: medium to large; color, almost brick red.
FLESH: tender, separating freely from seeds; flavor, sweet, rich, aromatic.
QUALITY: very good for domestic or commercial purposes.
VALUE: market, first class.
SEASON: a few days in advance of Concord. Keeps easily until January.

LINDLEY.

TRANSPARENT.

Valuable in Ontario only as a wine grape.
ORIGIN: seedling of Taylor, by Jacob Rommell, of Missouri.
VINE: vigorous, productive, free from mildew and rot.
BUNCH: compact, shouldered.
BERRY: firm, round; color, pale greenish yellow, transparent, with thin grey bloom; skin, thin; pulp, tender, juicy; flavor, fine and sweet.
SEASON: medium.
ADAPTATION: southern sections of the Province.

MASSASOIT. (*Rogers' 3.*)

Commended for the home garden as a fine red table grape. Needs careful spraying with Bordeaux to prevent black rot.

ORIGIN: seedling raised by E. S. Rogers, Salem, Mass.

VINE: vigorous; susceptible to attacks of black rot; self sterile.

BUNCH: medium size; shouldered; loose, fruit does not always set.

MASSASOIT.

BERRY: size, medium; form, round; color, brownish red.

FLESH: texture, tender, juicy; flavor, sweet, vinous.

QUALITY: dessert, very good.

VALUE: not profitable for market.

SEASON: just in advance of Concord.

MERRIMAC. (*Rogers' 19.*)

Considered by some the finest and most reliable black Rogers grape; in Ontario, the Wilder is considered more profitable, having larger bunches.

ORIGIN: Mammoth Sage x Black Hamburg; raised by Mr. E. S. Rogers, of Salem, Massachusetts.

VINE: vigorous; healthy; self sterile and needs mixed planting.

BUNCH: medium in size; fairly compact; roundish.

BERRY: size, large; color, black, with blue bloom.

FLESH: color, greenish; texture, half tender, juicy; flavor, sweet, vinous.

QUALITY: dessert, very good.

VALUE: market, first class.

SEASON: early to medium.

MOYER.

For the amateur's garden, this is a grape that should not be overlooked, for, as a dessert grape, it has now been fairly well tested, and seems to be growing in favor.

ORIGIN: Port Dalhousie, Ontario, by W. N. Read, from Delaware, fertilized with Miller's Burgundy, about 1880.

VINE. fairly vigorous, healthy and not subject to mildew, hardy; not very productive.

BUNCH: small, cylindrical in form, shouldered, not very compact, not uniform in size.

BERRY: small, round; color, amber, with grayish bloom; skin, thin, tough; pulp, tender, juicy; flavor, rich, sweet and excellent.

QUALITY: dessert, very good, but inferior to Delaware.

VALUE: second class for market.

SEASON: early.

MOYER.

MOORE. (*Moore's Early.*)

A favorite with vineyardists in Ontario, because of its earliness and its good quality. As early as Champion and of very much better quality, it is superseding that variety which has done so much to prejudice buyers against our black grapes.

ORIGIN: by John B. Moore, at Concord, Mass., from Concord seed, in the year 1872.

VINE: hardy, healthy, fairly vigorous, but only moderately productive, if compared with the Concord; needs good cultivation.

MOORE'S EARLY.

BUNCH: smaller than Concord, and rarely shouldered.

BERRY: averaging a little larger than the Concord; round; black; thin bloom.

FLESH: vinous, juicy, with slight foxiness.

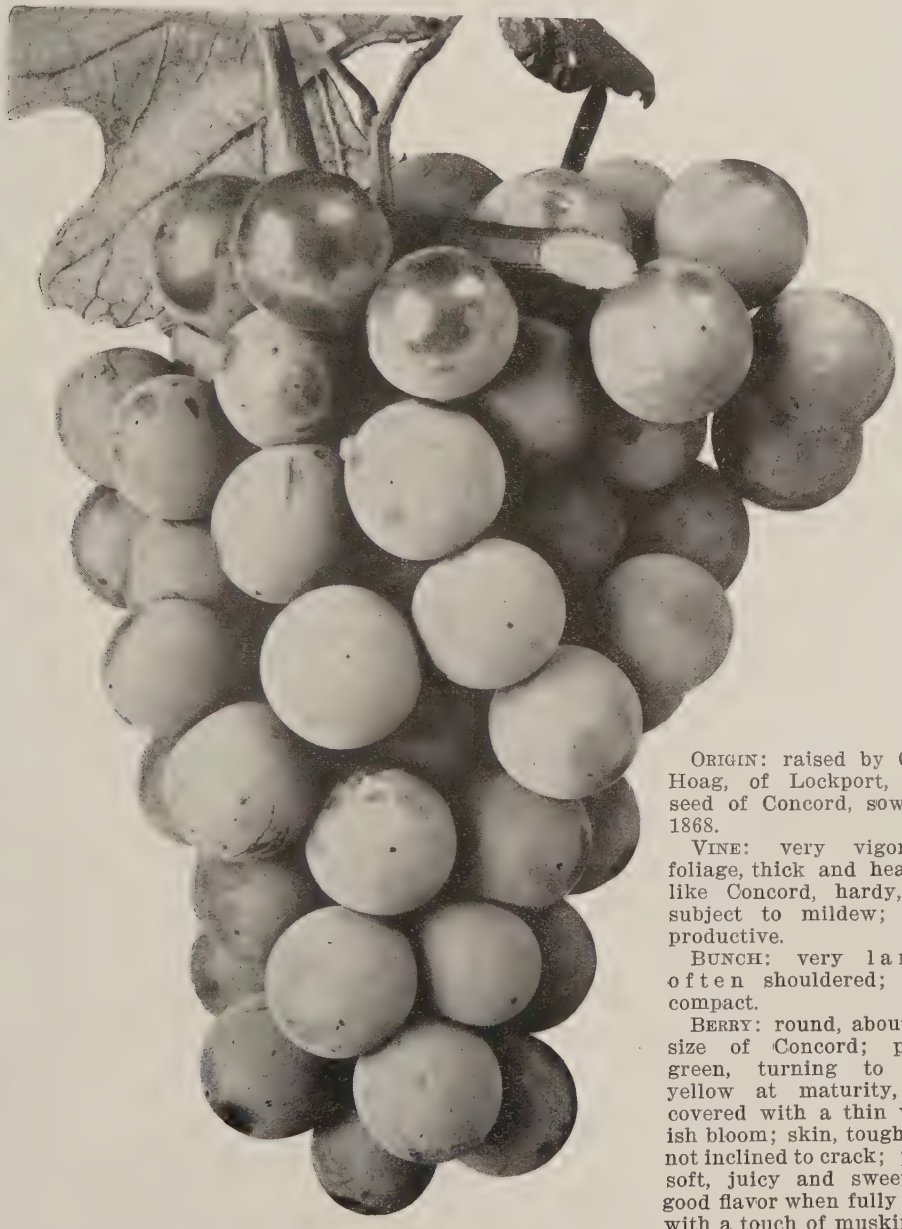
QUALITY: good.

VALUE: first class of its season.

SEASON: early.

NIAGARA.

The Niagara is the leading white grape in Ontario for commercial purposes. In health, vigor of vine and in productiveness, it has no superior, and it has been planted more widely than any other variety, except the Concord. For dessert purposes, it is good in quality when well ripened. We do not rerommend it for sections north of Toronto, unless in favored locations.



NIAGARA.

ORIGIN: raised by C. L. Hoag, of Lockport, from seed of Concord, sown in 1868.

VINE: very vigorous; foliage, thick and healthy, like Concord, hardy, not subject to mildew; very productive.

BUNCH: very large; often shouldered; very compact.

BERRY: round, about the size of Concord; pale green, turning to pale yellow at maturity, and covered with a thin whitish bloom; skin, tough and not inclined to crack; pulp, soft, juicy and sweet, of good flavor when fully ripe, with a touch of muskiness.

QUALITY: dessert, good; canning, very good.
VALUE: home markets, first class.

NORTHERN LIGHT.

A white grape, ripening late in September; not recommended for profit.
ORIGIN: Introduced by P. E. Bucke, Ottawa, Ontario.
VINE: vigorous; healthy; moderately productive.
BUNCH: compact; shouldered.
BERRY: size, medium; color, white; bloom, thin; flavor, sub-acid.
QUALITY: dessert, fair.
VALUE: market, hardly first class.
SEASON: late.

NORTHERN LIGHT.

POCKLINGTON. (*Golden Pocklington.*)

This grape was first shown at the New York State Fair, Rochester, in 1877, and was at that time considered the largest and finest white grape of purely native origin, and was largely planted for commercial purposes. However, since the introduction of the famous Niagara, the Pocklington has been almost lost sight of, and is very little planted.

ORIGIN: a seedling of Concord, raised by John Pocklington, Sandy Hill, N.Y.

VINE: of medium vigor; moderately productive; healthy, resisting mildew and rot; of Labrusca (Concord) parentage.

BUNCH: fairly compact, with small shoulder.

BERRY: round; color, pale green, turning golden yellow; flesh, pulpy, but tender and fairly juicy; flavor, sweet, somewhat foxy; drops from stem after gathering.

QUALITY: dessert, fair.

VALUE: home market, second class; distant market, third class.

SEASON: about a week later than Concord.

POCKLINGTON.

REQUA. (*Rogers' 28.*)

A fine table grape, supposed to be too late for Canada, but ripening well in the Niagara district, a sample of the kind of grape which should be grown for export, but the vine is scarcely productive enough to be profitable.

ORIGIN: E. S. Rogers, Salem, Mass.; a hybrid between the Wild Labrusca, or Mammoth Fox grape, of Massachusetts, and a European variety. Mr. Rogers produced his seedlings in 1856, and at first introduced them by their numbers only.

REQUA.

VINE: fairly vigorous and moderately productive.

BUNCH: large, shouldered, moderately compact, but somewhat poor.

BERRY: large, round; skin, thin, wine color, with thick bluish bloom; pulp, tender, juicy; flavor, sweet, sprightly; seeds, two or three, of medium size.

QUALITY: dessert, very good.

VALUE: first class for home or foreign market.

SEASON: very late.

SALEM.

One of the finest flavored of Rogers' hybrids; worthy of a place in the home garden.

ORIGIN: a hybrid between a native, the Wild Mammoth, fertilized by the Black Hamburg; raised by E. S. Rogers, Salem, Mass.

VINE: vigorous; productive; subject to black rot; foliage, large, strong.

BUNCH: medium size; compact; shouldered.

BERRY: size, large; form, round; color, chestnut red, with blue bloom; skin, thick; seeds, two, large.

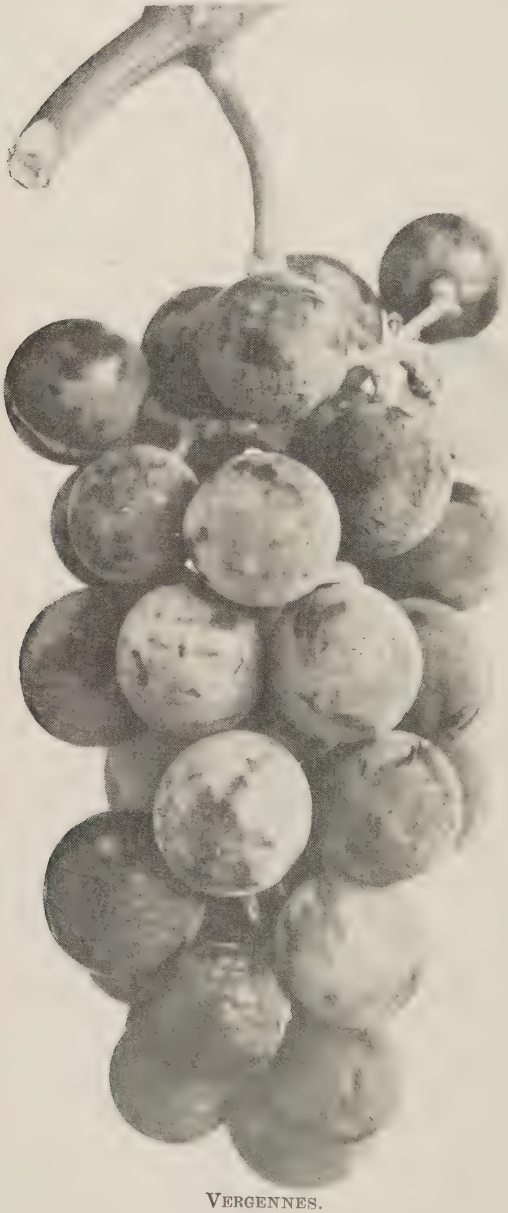
FLESH: texture, fairly tender, free from hard pulp, juicy; flavor, sweet, vinous, sprightly, aromatic.

QUALITY: dessert, good.

VALUE: not profitable for Ontario fruit growers.

SEASON: about with the Delaware.

SALEM.



VERGENNES.

VERGENNES.

The leading grape for winter use; may be kept in a cool cellar until spring.

ORIGIN: Vergennes, Vermont; introduced about 1880.

VINE: vigorous; healthy; productive.

BUNCH: medium; slightly shouldered; rather compact.

BERRY: large; oval; persistent; color, light amber to red, with greyish bloom.

FLESH: color, greenish; pulp, tender; fairly juicy; flavor, rich, pleasant, vinous.

QUALITY: dessert, fair; wine, good.

VALUE: market, second class in autumn, but more valuable in winter and spring.

SEASON: late, keeping all winter.

WOODRUFF. (*Woodruff's Red.*)

An attractive red grape, which promises to be valuable.

ORIGIN: C. H. Woodruff, Ann Arbor, Mich., in 1874; a chance seedling, thought to be a cross between Catawba and Concord.

VINE: vigorous, hardy, productive; somewhat subject to black rot.

BUNCH: good size; shouldered; compact.

BERRY: large; round; red, with thin bloom; does not crack.

QUALITY: dessert, good.

VALUE: market, first class.

SEASON: about the same as Concord.

WILDER. (*Rogers' 4.*)

Considered in many parts of Ontario the best black grape; but it is not so productive as Concord, nor as resistant of mildew.

ORIGIN: a seedling raised by E. S. Rogers, of Salem, Massachusetts, and named in honor of Marshall P. Wilder, the late president of the Massachusetts Horticultural Society.

VINE: vigorous; somewhat inclined to mildew in unfavorable seasons; but otherwise healthy; canes, heavy and long, should have long pruning.

BUNCH: self sterile; medium size; compact, with a small shoulder.

BERRY: large; round; dark purple, with slight bloom.

FLESH: texture, fairly tender, juicy, somewhat pulpy; flavor, rich, sweet, pleasant.

WILDER.

QUALITY: dessert, very good.
VALUE: market, first class.
SEASON: medium.

WINCHELL. (*Green Mountain.*)

The best white grape of its season for the dessert table. Not much planted for market.

ORIGIN: Green Mountains of Vermont, by a Mr. Winchell, after whom it has been very properly named; but, among fruit growers, the name Green Mountain has the preference.

VINE: hardy, healthy, only fairly vigorous and fairly productive.

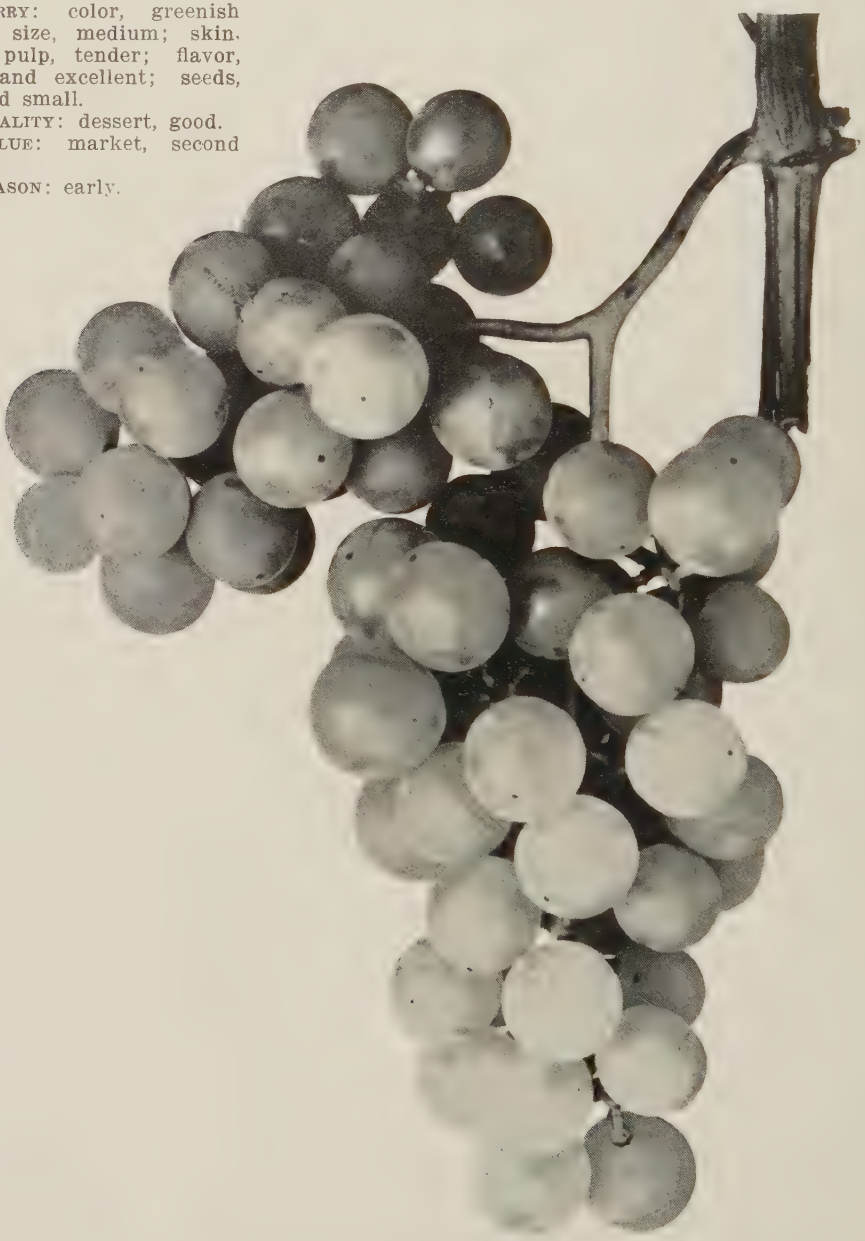
BUNCH: compact; well shouldered.

BERRY: color, greenish white; size, medium; skin, thin; pulp, tender; flavor, sweet and excellent; seeds, few and small.

QUALITY: dessert, good.

VALUE: market, second class.

SEASON: early.



WINCHELL OR GREEN MOUNTAIN.

WORDEN.

The vines of the Worden are almost identical in character and appearance with its parent, the Concord.

When first introduced, it was thought to be superior to that variety for the main crop, but it has proved to be so only in its earliness, ripening a few days in advance.

ORIGIN: S. Worden, Minnettoo, N.Y., from Concord seed.

VINE: strong, vigorous grower, with coarse, stout foliage, dark green above, rusty underneath; very hardy, healthy and very productive.

WORDEN.

BUNCH: large, compact, shouldered.

BERRY: large, black; skin, tender, thin, with heavy bloom, cracks easily; flesh, sweet, when well ripened; pulp, tender, and loses flavor soon after ripening; a poor keeper.

QUALITY: fair for dessert purposes.

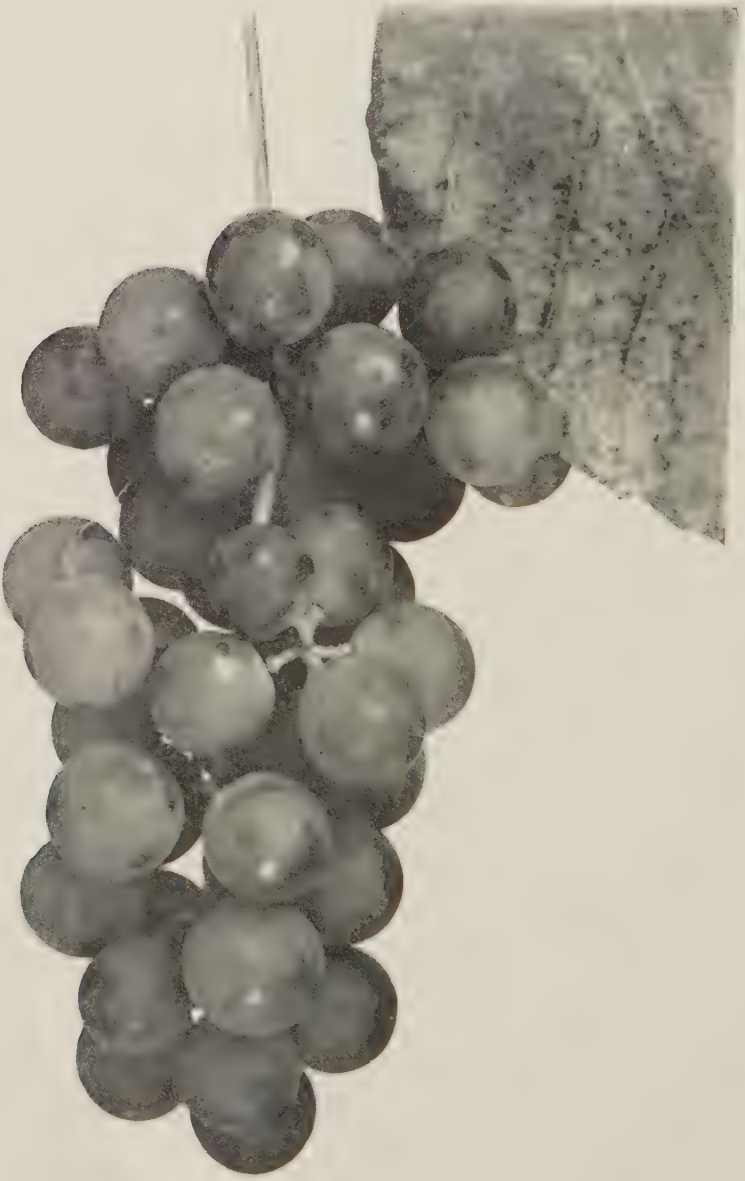
VALUE: near market, first class; berries too loose on stem for long shipments.

SEASON: early.

ADAPTATION: well suited to the northern sections, because of its early ripening.

WYOMING. (*Wyoming Red.*)

An attractive early market grape; ripens before Delaware.
ORIGIN: Wyoming Valley, in Pennsylvania.
VINE: healthy; vigorous; hardy and fairly productive.
BUNCH: small; compact; attractive.
BERRY: size, medium; color, very bright red.
FLESH: texture, tender, juicy; flavor, sweet.
QUALITY: dessert, fair.
VALUE: market, first class.
SEASON: medium.



WYOMING.

3. Bush Fruits

In Bush Fruits are included the Blackberry, Currant, Dewberry, Gooseberry, and Raspberry. These fruits, while not being of quite so much importance from a commercial standpoint as the tree fruits, are grown and consumed in very large quantities in Ontario, and as they are used in many ways by housekeepers there will always be a demand for them. They can be grown between the tree fruits to advantage while the latter are young and hence often augment the revenue of the fruit grower materially before the tree fruits come into full bearing.

Some idea of the large quantities of bush fruits which are grown will be obtained from the Dominion census statistics for 1911, where it is stated that there were at that time 13,940 acres devoted to small fruits in Ontario, on which were produced about 27,000,000 quarts, valued at $1,383,000.00. The strawberry is included in the above estimate. The present area devoted to small fruits is estimated at 15,000 acres.

THE BLACKBERRY

The blackberry is not grown so largely in Ontario as it might be. It is one of the most profitable fruits to grow where it succeeds well, but as the crop is rather uncertain except in southern Ontario and in localities farther north where it is protected by a deep snowfall, its range of successful culture is somewhat limited. Where there is not danger of winter killing, a well drained clay loam is probably the best for the blackberry, as it is cooler and more retentive of moisture than lighter soils. The blackberry must have plenty of soil moisture when the fruit is ripening, otherwise but little of the crop will develop. Further north, where hardiness is of greater consideration than conservation of moisture, the poorer and warmer soils are preferred, as the blackberry on these soils does not make as rampant a growth and hence ripens its wood better.

The blackberry may be planted in late fall or early in the spring. If planted too early in the fall young growth may start which is likely to be winter killed. The soil should be well prepared and the plants set a little deeper than they were in the nursery, in rows about eight feet apart and three feet apart in the rows. Some growers prefer planting them in hills seven or eight feet apart each way, thus finding them easier to control. Larger fruit is so produced as they can be kept cultivated both ways. Summer pruning is important with the blackberry, as the lower the canes can be kept the better they are likely to come through the winter, and the easier they are to handle. Summer pruning consists in merely pinching back the young growth to within about eighteen inches of the ground, after which side shoots will be thrown out. It is better to err on the side of low pinching than to let the canes get too tall. This summer pruning may, if delayed, cause late growth, which will not ripen; hence it should be done in time or not at all. In the spring the laterals should be headed back to within eighteen inches or two feet of the main canes. Old canes and the weakest of the new ones should be cut out in the fall or early in the spring each year. There will be a light crop of fruit the second year and a full crop the third year. Four or five full crops are about as much as should be taken from one plantation.

Blackberries should not be picked until they are ripe. This fruit will never increase in popularity if fruit growers persist in marketing green blackberries, as they are quite unpalatable, whereas the ripe fruit has a fine flavor.

VARIETIES RECOMMENDED.

General List, approved by the Board of Control.

Agawam, Snyder, and for southern sections, Kittatinny.

DISTRICT LISTS.

FONTHILL DISTRICT

(Including Townships of Pelham, Stamford, and Thorold).

G. C. Brown, Fonthill.

Eldorado, Snyder.

BURLINGTON-OAKVILLE DISTRICT

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto).

A. W. Peart, Burlington.

Snyder, Western Triumph, Agawam.

ESSEX PENINSULA

(Including Essex, Kent, and Pelee Island).

J. L. Hilborn, Leamington.

Mersereau, Eldorado, Kittatinny.

DESCRIPTION OF VARIETIES

AGAWAM.

A profitable variety, and a favorite for the table.
ORIGIN: found growing wild by John Perkins, Ipswich, Mass., about 1870.
PLANT: hardy, vigorous, and productive; resistive of drouth.
BERRY: oblong, medium size, black, sweet, tender and of good flavor.
SEASON: early.
ADAPTATION: succeeds in nearly all fruit sections; one of the hardiest varieties, and therefore planted in northern sections in preference to Kittatinny.

AGAWAM.

BRITON (*Ancient Briton*).

Counted one of the best varieties where it succeeds; it is a special favorite with fruit growers in Wisconsin, in which State it originated.

ORIGIN: a Wisconsin seedling found by A. H. Briton; first mentioned in the Report of the Wisconsin Horticultural Society, 1869.

PLANT: hardy, vigorous and fairly productive. Budd, in his "Systematic Pomology," speaks of it as one of the hardiest varieties yet tested.

BRITON.

BERRY: medium to large; form oblong, conical; texture, melting; flavor very pleasant.

SEASON: medium.

ELDORADO.

A hardy and productive variety.

ORIGIN: accidental seedling near Preble, Ohio, about 1882.

BUSH: a strong, vigorous grower; healthy; hardy; moderately productive.

ELDORADO.

BERRY: medium to large; oblong, conical, irregular; drupes large; seeds and core small; flavor sprightly, pleasant.

QUALITY: table, very good.

VALUE: market, first class.

SEASON: early.

ERIE.

A variety much like the old Lawton; has not become popular in the commercial plantations of Ontario.

ORIGIN: Ohio, on the farm of L. B. Pierce, who thinks it is a cross between Lawton and Kittatinny; introduced by J. T. Lovett in 1886.

BUSH: fairly vigorous; fairly hardy; productive.

BERRY: form roundish, oblong; size medium; color black; flavor fairly good.

QUALITY: cooking, good.

VALUE: market, second class.

SEASON: medium.

KITTATINNY.

This has been the favorite blackberry in Ontario for both home use and market. Unfortunately, it is subject to Orange Rust, for which as yet there is no certain remedy, and in some places fruit growers have given up this variety on account of it.

ORIGIN: Kittatinny Mountains, N.J.; found growing wild by a Mr. Woolverton in 1874, but not much disseminated until many years later.

PLANT: very vigorous, but tender outside of the peach belt; productive; propagated by suckers and by root cuttings.

KITTATINNY.

BERRY: large, oblong, slightly conical; shiny black when ripe, becoming gradually duller after gathering; flesh moderately firm, sweet, rich and excellent.

QUALITY: good for dessert; very good for cooking.

VALUE: first class for home market.

SEASON: medium to late.

LAWTON.

A variety that has done much to popularize the blackberry as a market fruit, but now supplanted by other and better kinds. In some markets all varieties of blackberries go under the name of Lawton.

ORIGIN: introduced by Wm. Lawton, of New Rochelle, N.Y., in 1848.

BUSH: vigorous; hardy; productive; canes very spiny.

BERRY: large; oblong; color jet black when fully ripe, but if gathered sooner it is reddish; texture soft and juicy at full maturity, otherwise it has a hard core, and is sour and insipid; flavor sweet and excellent when quite ripe, but in this condition rather soft for shipment.

QUALITY: cooking, good.

VALUE: market, second class.

SEASON: medium.

LAWTON.

MERSEREAU.

"Originated with J. M. Mersereau, Cayuga, N.Y. It resembles the Snyder, but is larger, of better quality, and less likely to turn red after being picked. Very promising." (*Card.*)

MERSEREAU.

MINNEWASKI.

Introduced with great flourish, but it has proved disappointing, except in the place of origin, because tender and unproductive.

ORIGIN: by A. J. Caywood, of Marlboro, N.Y.
PLANT: a stout, vigorous, upright grower, but unproductive and tender.
BERRY: large, oblong, dull in color, and of fair quality.
SEASON: medium.

OHMER.

An excellent late blackberry, for home use and for market.

ORIGIN: a chance seedling, found by N. Ohmer, of Ohio.
BUSH: vigorous; spreading; very productive.
FRUIT: roundish; black; large; firm without core; juicy; flavor mild, pleasant.
QUALITY: second rate.
VALUE: market, first class.
SEASON: medium.

SNYDER.

A popular variety in the commercial fruit garden, because of its productiveness; very reliable in the colder sections, but not desirable for the table because of its inferior quality.

ORIGIN: on farm of Henry Snyder, near Laporte, Indiana, about the year 1851.
PLANT: a vigorous, stout, upright grower, hardy and very productive.
BERRY: medium size, roundish, firm and carries well.
SEASON: medium.

SNYDER.

TAYLOR (*Taylor's Prolific*).

A valuable commercial berry for colder sections, its season being later than Snyder.

ORIGIN: introduced by Mr. Taylor, of Spiceland, Indiana, about the year 1867.

BUSH: hardy, vigorous, and productive.

TAYLOR.

BERRY: large; roundish oblong; texture soft, juicy; flavor rich, moderately sweet.

SEASON: medium to late.

TRIUMPH (*Western Triumph*).

A good market berry, if grown on favorable soil.

ORIGIN: a chance seedling, found in Illinois, on the prairie, in 1858.

BUSH: moderately vigorous; very productive, inclined to overbear; requires moist bottom and close pruning for best results; semi-hardy.

BERRY: size medium; form roundish oblong; drupelets coarse; flavor sprightly, rich and sweet, without core.

QUALITY: fair.

VALUE: market, first class.

SEASON: medium to late.

WACHUSETT.

This blackberry was first introduced as Wachusett's Thornless, on account of its comparative freedom from spines. This, however, is the chief point in its favor, as the plant is not productive enough to be of value to the Ontario fruit grower.

ORIGIN: a wild plant on Monadnock Mountain, Massachusetts.

BUSH: a slow grower, at first upright, afterward drooping; healthy, not very productive; spines few; fruit clusters few.

BERRY: size medium; form roundish, moderately firm, of good quality.

VALUE: market, second class.

SEASON: early to medium.

WILSON.

Has been a popular variety in New Jersey. It demands close pruning in order to prevent overbearing, and must be covered for winter protection in most sections.

ORIGIN: John Wilson, of Burlington, N.J., about 1854.

PLANT: vigorous, productive; in form, partaking of both the low and the high bush blackberries.

BERRY: large; firm; somewhat irregular, tapering towards the apex; grains mostly large but with some smaller ones mixed in; flavor quite acid until ripe, when it is rich and sprightly.

SEASON: medium.

WILSON.

THE CURRANT

The currant is a very hardy fruit, and for this reason can be grown with success all over the Province of Ontario, and as fair results are obtained without high culture, almost everyone who has a garden grows currants. Like all other fruits, however, the currant becomes most profitable when given good care.

The currant is a moisture-loving fruit, hence for profit it should be planted in a cool, moist, but well-drained soil. It also requires rich soil, hence as a rule the best is a good clay loam which is retentive of moisture and cooler than sandy loam. The soil should be thoroughly prepared for currants before planting. One year old plants from cuttings, if strong, will give good satisfaction, although two year old plants are not too old. They should be planted in rows about six feet apart, and from four to five feet apart in the rows, the wide distance being more satisfactory for the strong growing varieties and especially black currants. Fall planting is best for currants, as the buds start very early in the spring and should these develop before they can be planted, their future growth will be checked. They can, however, be planted in the spring with success. The plants should be set a little deeper than they were in the nursery, and the soil well pressed against the roots. Thorough cultivation should follow to promote as much growth as possible, but it should be shallow, as the currant roots are near the surface. The following spring the currants will need some pruning to give them a shapely open head, the bush when well shaped having from five to seven main branches well distributed to avoid crowding. The fruit of red currants is formed from spurs on wood two years old, while the fruit of black currants is borne on wood of the previous year. Currants should be pruned annually to get the best results.

After the bushes are in full bearing, the pruning should be done with the object of removing some of the young and some of the older wood from the ground each year. There should be no wood more than three years old left on black currant bushes, as the object is to keep up a strong growth of young wood. It is also not well to let the wood of red currants get very old, as the finest fruit is produced on the two and three year old wood.

The currant plantation will begin to give some fruit the third season, but a full crop will not be obtained until the fourth.

As the currant is a gross feeder, drawing heavily on the fertility of the soil, the plantation should receive an annual dressing of barnyard manure or some other fertilizer. Rotten manure applied in the autumn and cultivated in the next spring gives very good results. Applications of wood ashes or muriate of potash and ground bones are also beneficial.

Varieties Recommended.

General List, approved by the Board of Control.

Black: Black Victoria, Champion, Lee, Boskoop Giant, Saunders.
Red: Cherry, Fay, Red Cross, Victoria, Wilder.
White: Grape.

DISTRICT LISTS.

Fonthill District

(Including Townships of Pelham, Stamford and Thorold).

G. C. Brown, Fonthill.

Red: Cherry, Perfection, Prince Albert.

BURLINGTON-OAKVILLE DISTRICT

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto.)

A. W. Peart, Burlington.

Black: Lee, Naples, Saunders, Champion, Victoria.
Red: Cherry, Fay, Pomona, Wilder, Victoria.
White: Grape, Imperial.

W. F. W. Fisher, Burlington.

Black: Champion, Victoria, Boskoop Giant.
Red: Cherry, Fay, Wilder.

ESSEX PENINSULA

(Including Essex, Kent and Pelee Island).

J. L. Hilborn, Leamington.

Black: Victoria, Champion.
Red: Cherry, Fay, Wilder.
White: Grape.

J. Atkin & Son, Leamington.

Red: Fay, Red Cross, Perfection, Loudon.
Black: Victoria, Saunders, Lee.

LAKE HURON DISTRICT

(Including Counties of Huron and Bruce).

D. F. Hamlink, Goderich.

Black: Champion, Naples, Saunders, Victoria.
Red: Fay, Cherry, Perfection, Albert.
White: Grape.

GEORGIAN BAY DISTRICT

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay).

J. G. Mitchell, Clarksburg.

Black: Lee, Champion.
Red: Cherry, Fay.
White: Grape.

LAKE SIMCOE DISTRICT

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe).

G. C. Caston, Craighurst.

Black: Naples, Victoria.
Red: Fay, Versailles, Cherry.
White: Grape.

GUELPH DISTRICT

(Including the high inland Counties of southwestern Ontario, *i.e.*, Wellington, Waterloo, northwestern section of Perth, south part of Grey, Dufferin, and northwest section of Peel and Halton).

Prof. J. W. Crow, O.A.C., Guelph.

Black: Victoria, Champion, Saunders.
Red: Red Cross, Victoria, Fay.
White: Grape.

Ottawa District

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Black: Saunders, Collins Prolific, Black Victoria. Boskoop Giant is very promising.
Red: Pomona, Victoria, Dutch and Wilder in the most favored parts.
White: Grape.

Algoma District

(Including the islands of Manitoulin and St. Joseph and a limited portion of the northern and eastern shore of the Georgian Bay).

Chas. Young, Richard's Landing.

Black: Saunders, Champion, Victoria.
Red: Dutch, Versailles.
White: Grape.

DESCRIPTION OF VARIETIES

BLACK VICTORIA.

Bush: upright, of medium vigor, healthy, hardy and productive.

Berry: large, black, firm, sweet.

Quality: fine.

Season: medium.

Black Victoria.

BRAYLEY.

BUSH: upright, spreading, vigorous, healthy, hardy; not very productive.
BUNCH: long, straggling, loose.
BERRY: dark red in color; size medium; flavor acid, sprightly.
SEASON: medium.

CHAMPION.

ORIGIN: England.
BERRY: black, round, very large; good to very good.
VALUE: good.

CHAMPION.

CHATAUQUA.

ORIGIN: New York State.
PLANT: vigorous; very producitve.
BUNCH: long; compact.
FRUIT: deep, bright red; about size of the Cherry currant; flavor acid.
QUALITY: good.
VALUE: market, first class.
SEASON: medium.

CHERRY (*Red Imperial, Fertile d'Angers of LeRoy*).

The principal red currant grown in Southern Ontario for commercial purposes. Its large size, fine color and earliness, combine to make it the most satisfactory of all varieties for market, and many acres have been set out for this purpose. When well cultivated and well pruned back, a plantation of Cherry currants will continue very productive for at least twelve or fifteen years.

ORIGIN: Italy; introduced into the United States in 1846.

PLANT: vigorous, a stout, stocky grower; very productive; begins bearing the second year after planting; foliage thick, dark green.
BUNCH: usually short, but sometimes long and tapering, compact.
BERRY: very large, globular; bright red in color; flavor subacid; texture firm.
QUALITY: fair.
VALUE: first class for market and for jellies.
SEASON: medium to late.
ADAPTATION: general, but succeeds better on clay loam than upon light sand.

CHERRY.

CLIPPER.

BUSH: a strong grower and productive.
BUNCHES: large.
FRUIT: medium to large; skin moderately thick, tender; briskly subacid and of good flavor.
QUALITY: good; ripens somewhat unevenly.
SEASON: medium to late. Promising. (Macoun.)

CLIPPER.

CRANDALL.

This interesting currant is of very doubtful value for the currant plantation, for canning. It is of the *Ribes aureum* type, or flowering currant, and was produced from seed of that variety by Mr. Crandall.

ORIGIN: Kansas.

BUSH: upright, spreading, hardy, healthy, vigorous, rampant and moderately productive.

BUNCH: short, compact.

BERRY: variable in size; bluish black; skin thick; flavor sprightly, subacid.

SEASON: medium to late; ripens unevenly, some of the later berries hanging until frost.

ECLIPSE.

BUSH: a medium to strong grower and productive.

BUNCHES: large.

FRUIT: medium to large; skin moderately thick, fairly tender; subacid.

QUALITY: good; ripens evenly.

SEASON: early. Promising on account of productiveness, size and quality. (*Macoun.*)

ECLIPSE.

FAY (*Fay's Prolific*).

A variety that has been much advertised as superior to the Cherry, but, as a matter of fact, is very similar in fruit and in productiveness.

ORIGIN: New York State.

BUSH: vigorous, but sprawling, and somewhat subject to the borer where the shoots are not frequently renewed; productive.

BUNCH: moderately close, loose toward the base.

BERRY: very large, globular; bright red; firm; flavor subacid.

QUALITY: good.

VALUE: first class for market.

SEASON: medium to late.

FAY.

HOLLAND (*White Holland, Long Bunched Holland*).

The best bunched and the most showy of the white currants.

BUSH: vigorous, healthy and quite productive.

BUNCH: loose at base of racemes, close toward apex.

BERRY: globular; skin thick, white; flavor mild acid.

SEASON: medium.

KERRY.

BUSH: a strong grower and very productive.

BUNCHES: medium to large.

FRUIT: above medium to large; skin thick but tender; briskly subacid.

QUALITY: above medium to good.

SEASON: medium to late. One of the most promising for commercial purposes on account of its great productiveness and good size of fruit. (*Macoun.*)

KERRY.

LONDON (*London Market*).

One of the most promising of the new varieties for all purposes.

ORIGIN: England.

BUSH: very vigorous, healthy; very productive.

BUNCH: comparatively compact.

BERRY: color red; quality fair.

VALUE: very good for both kitchen and market.

SEASON: medium.

LEE.

A good commercial variety.

ORIGIN: England.

BUSH: moderately vigorous, healthy, hardy and moderately productive.

BERRY: black, very large; flavor subacid; quality very good.

SEASON: medium.

LEE.

MIDDLESEX (*Saunders' 12*).

ORIGIN: with Dr. Saunders, Ottawa, Canada.

BUSH: very vigorous, healthy; very productive.

BUNCH: compact.

BERRY: round; skin jet black, thick; flavor good.

VALUE: first class for cooking and market.

SEASON: medium.

NAPLES.

One of the best market varieties of black currants.
ORIGIN: Europe.
BUSH: upright, strong, vigorous, hardy, healthy and very productive.
BERRY: large, black, subacid.
QUALITY: good.
SEASON: medium to late.

NAPLES.

NORTH STAR.

ORIGIN: Minnesota.
BUSH: vigorous, healthy, moderately productive.
BUNCH: compact.
BERRY: round; skin thin, bright red; subacid.
QUALITY: cooking, very good.
VALUE: second class on account of size, but, season and productiveness considered, it might be rated first class.
SEASON: medium to late.

POMONA.

"An Indiana variety, introduced by Albertson & Hobbs, of Bridgeport, Indiana. Claimed to be more prolific, with fewer seeds, and sweeter than any other currant; clear, bright red, about the size of Victoria; easily picked, and hangs a long time on the bushes." *(Card.)*

North Star.

Pomona.

PRINCE ALBERT.

PRINCE ALBERT.

One of the most profitable red currants; excellent for canning.

BUSH: a poor grower while young, but as it grows older quite vigorous and productive. Beach, of Geneva, N.Y., in a three years' test found this the most productive currant in his collection, yielding, during that period, an average of about nine pounds per bush; leaves large and deeply cut.

BUNCH: short to medium length.

BERRY: size medium; color light red; flavor very acid.

QUALITY: first class for cooking or jelly.

VALUE: market, first class.

SEASON: late.

RED CROSS.

Very much resembles Cherry, but somewhat poorer in bunch.

ORIGIN: New York State, probably a cross between the Cherry and the White Grape.

BUSH: upright; vigorous; hardy; fairly productive.

BUNCH: compact.

BERRY round; color bright red; flavor fairly good, agreeably acid.

SEASON: medium.

RED CROSS.

ST. GILES (*Belle de St. Giles*).

This is a large berry of fine quality, but not productive enough for the commercial plantation.

ORIGIN: Europe.
BUSH: upright, spreading; vigor medium; hardy, not very productive.
BUNCH: large and compact.
BERRY: red, large, subacid.
QUALITY: excellent.
SEASON: medium.

ST. GILES.

RED DUTCH.

Too small for the commercial plantation; fine flavor for dessert.
ORIGIN: Europe.
BUSH: dwarfish, slender; hardy; very productive.
BUNCH: medium; loose.
BERRY: small, oblate, sprightly, subacid, pleasant.
VALUE: second class for market.
SEASON: medium.

SAUNDERS.

A very promising black currant.
ORIGIN: London, Ontario, by Dr. Wm. Saunders.
BUSH: vigorous; hardy; healthy; productive.

SAUNDERS.

BERRY: large; black; flavor sweetish or subacid.
QUALITY: very good.
VALUE: market, first class.
SEASON: medium.

VICTORIA.

A good commercial variety.
ORIGIN: England.
BUSH: very vigorous; hardy; very productive.
BUNCH: long, loose.
BERRY: medium; color red; firm; flavor acid.
VALUE: market, first class.
SEASON: medium.

VERSAILLAISE.

This variety closely resembles Cherry.
ORIGIN: France.
BUSH: healthy, hardy, fairly vigorous and fairly productive.
BUNCH: medium and moderately compact.
BERRY: round; bright red; flavor milder than that of the Cherry.
VALUE: market, first class.
SEASON: medium to late.

VICTORIA.

VERSAILLAISE.

White Grape.

White Imperial.

WHITE GRAPE (*White Antwerp; White Transparent*).

This is esteemed the finest of all the white currants, when its many good points are taken into consideration, viz., quality, beauty and productiveness. For market, its white color is against it, but for the home garden it is one of the best.

ORIGIN: Europe.
BUSH: moderately vigorous; hardy; very productive.
BUNCH: somewhat straggling.
BERRY: skin white, transparent; flavor mild acid, sprightly, agreeable
QUALITY: best for dessert.
VALUE: first for market.
SEASON: medium.

WHITE IMPERIAL.

BUSH: vigorous, hardy, healthy and fairly productive.
BUNCH: loose, with half an inch of stem.
BERRY: white; flavor mild; quality fine.
QUALITY: dessert, very good.
SEASON: medium.

WILDER.

This is one of the best of the red currants and has given an excellent record at our Burlington station. It is highly recommended in a recent report of the American Pomological Society.

ORIGIN: New York State, named in honor of the late Marshall P. Wilder.

BUSH: healthy, hardy and very productive.

BUNCH: compact.

BERRY: dull red; form uneven; mild in flavor; of good quality.

VALUE: first class for market.

SEASON: medium.

WILDER.

THE DEWBERRY

As a cultivated fruit the dewberry is of such recent introduction into American horticulture that it can scarcely be said to have a history. As late as 1884 the dewberry was not cultivated for sale by nurserymen. It was not until the introduction of the Lucretia, which was brought into general notice about 1886, that the dewberry began to occupy any prominent place in American horticulture.

The dewberries are distinguished from the blackberries chiefly by their trailing habit of growth, their early ripening and the method of propagation. There are important differences also in the flower cluster which need not be discussed here. The dewberries propagate by means of tips, while the blackberries propagate by suckers, a point of much practical importance in cultivation.

The market of the dewberry is limited by the short life of the berry in transit. It cannot be shipped any great distance, but should be on the market within thirty-six hours after picking. The value of the dewberry lies in its early ripening.

A cool climate and a high elevation seem to suit the dewberry best. Lower elevations are not so well adapted to the culture of this fruit on account of the extreme heat of summer, the berries being short and seedy as compared with the long luscious berries grown at higher altitudes. The fruit seems to develop best where the maximum temperature is not above 90°, and probably maximum temperature is a better guide than elevation. However, severe, drying winters may prove too trying for dewberries in localities otherwise well adapted to their culture.

Soils and Locations: The dewberry will grow well on a variety of soils, but considered from the standpoint of both ease of culture and adaptability, light sandy soils, free from rock or gravel, are best suited to its culture. As the dewberry seems to favor a cool climate much may be gained by choosing a cool, northern exposure.

Planting: Spring setting is the usual method, but there seems no reason why the plants should not be set in the fall if they are protected during the winter. Planting in the fall should be done in September, and spring planting as soon as the ground can be worked.

The question of the distance apart at which they are to be placed will be largely determined by the method of training to be employed. If to be trained to single stakes, four feet apart each way will be found satisfactory; if to wire trellises, six feet by perhaps three feet in the row will be more convenient. If the plants are to be allowed to grow practically prostrate, which is the natural method of growth, they will need to be set five feet apart each way. The objection to this method is that more space is demanded for training the plants than is needed for their maintenance.

Cultivation: The cultivation of the dewberry patch should not be unlike that for any other bush fruit. Cultivation stops at the opening of the picking season and is resumed again at its close, continuing until the end of the growing season. Since deep cultivation, which disturbs or breaks the roots, tends to start objectionable plants in the middles, the early cultivations and possibly the later ones should be shallow. If the plants are allowed to run for the purpose of being trained on a trellis, cultivation must be in one direction.

Hardiness: The inherent hardiness of the dewberry may not be equal to that of many varieties of the blackberry, yet its prostrate habit of growth tends to afford it protection, which enables it to withstand the cold of winter, in most cases, as well as blackberries. The older canes will naturally be cut away before winter and the younger canes, which lie directly on the ground, are in the most convenient position possible for being covered with soil or mulch if such protection is necessary.

Varieties: The Lucretia is the best known of all the dewberries. As sent out, this variety has been greatly mixed, but the true type is a large fruit, productive, of good quality, and gives satisfaction wherever the dewberry succeeds.

Another variety, Mayes, seems to be one of the most promising varieties now grown.

Aughinbaugh is one of the best known varieties of the western dewberries, and is especially noteworthy as being the parent of the Loganberry, which has attracted so much attention in the west of late.

THE GOOSEBERRY

The gooseberry and the currant are the two hardiest bush fruits which are cultivated, and the gooseberry, like the currant, succeeds in all parts of the Province, although the hardy gooseberries are confined to the varieties derived from the native species and to crosses between the native and the European. The European varieties are only grown successfully in favored locations as in most places they are very subject to mildew.

The gooseberry, like the currant, requires a cool, moist, though well-drained soil to give the best results, and suffers more than almost any other fruit in a dry time. These cool, moist conditions are best obtained as a rule by planting in a well-drained friable clay loam. The soil should be thoroughly prepared, as although the gooseberry will give a fine crop of fruit, even if not well cared for, the size will be small. Gooseberries may be planted with success either in spring or fall, but the fall planting is preferable, as growth begins early and plants usually receive a severe check if planted in the spring.

A good distance for planting is six by four or five feet. As gooseberries and currants are usually planted together, it is best to give them both the same distance, so that cultivation will be easier. The soil should be well cultivated every year to retain moisture. As the gooseberry makes much more wood each year than is needed, annual pruning is necessary.

The pruning should be begun before growth starts the second year, and with the object of obtaining an open bush having four or five main fruiting branches well distributed. The annual pruning should consist of removing most of the young branches, leaving a few of the best to take the place of some of the older ones later on and removing enough of the laterals to open up the head.

The gooseberry produces its fruit on spurs on wood two or more years old, hence there should always be a fair amount of this wood. Wood more than three years old should be removed to give place to that which is younger and which will bear better fruit.

The soil should be well fertilized and treated in this respect much like the currant.

The bushes will bear some fruit in the third season and should have a full crop in the fourth.

Although in England and Europe ripe gooseberries are highly esteemed, few of them are eaten raw in Ontario, hence this fruit is usually picked green and used for sauce, canning and pies. Being firm, it ships well and is usually a profitable crop.

Varieties Recommended.

General List, approved by the Board of Control.

American Varieties: Pearl, Downing, Red Jacket.
English Varieties: Crown Bob, Whitesmith, Industry, Keepsake. Not recommended on account of mildew, unless to be thoroughly sprayed with the lime sulphur mixture.

DISTRICT LISTS.

Burlington-Oakville District

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto).

A. W. Peart, Burlington.

Pearl, Downing, Red Jacket.

W. F. W. Fisher, Burlington.

Downing, Josselyn or Red Jacket.

ESSEX PENINSULA

(Including Essex, Kent, and Pelee Island).

J. L. Hilborn, Leamington.

Pearl, Downing, Whitesmith.

LAKE HURON DISTRICT

(Including Counties of Huron and Bruce).

D. F. Hamlink, Goderich.

Pearl, Downing.

GEORGIAN BAY DISTRICT

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay).

J. G. Mitchell, Clarksburg.

Houghton, Pearl, Downing, Red Jacket, Industry.

LAKE SIMCOE DISTRICT

(Including the northern and eastern section of Simcoe and northern sections of York and Ontario bordering on Lake Simcoe).

G. C. Caston, Craighurst.

Pearl, Downing.

GUELPH DISTRICT

(Including the high inland counties of southwestern Ontario, *i.e.*, Wellington, Waterloo, northwestern section of Perth, south part of Grey, Dufferin, and northwest section of Peel and Halton).

Prof. J. W. Crow, O.A.C., Guelph.

American: Pearl, Downing.
English: Whitesmith, Industry.

ST. LAWRENCE VALLEY DISTRICT

(Including the valley of the St. Lawrence river from Kingston to the eastern boundary of the Province).

Harold Jones, Maitland.

Golden Prolific, Downing.

OTTAWA DISTRICT

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Pearl, Downing, and Red Jacket.

ALGOMA DISTRICT

(Including the islands of Manitoulin and St. Joseph and a limited portion of the northern and eastern shore of the Georgian Bay).

Chas. Young, Richard's Landing.

Golden Prolific, Pearl, Downing, Red Jacket, Champion.

DESCRIPTION OF VARIETIES

CHAMPION.

A valuable variety for market in green condition.

ORIGIN: at Salem, Oregon.

PLANT: very vigorous; of easy cultivation; fairly productive.

BERRY: size about equal to that of Downing; form round oval; skin greenish yellow, thin, tender; flavor fair.

QUALITY: fair.

VALUE: market, second class.

SEASON: early.

CROWN BOB.

CROWN BOB.

A profitable gooseberry.

BUSH: inclined to overbear, and thus exhaust its vitality; drooping in habit.

BERRY: oblong, very large, especially if thinned before it is full grown; skin thin, hairy; color red; of very good flavor, but being an English variety is subject to mildew.

SEASON: early.

DOWNING.

DOWNING (slightly reduced).

This has been the most popular gooseberry of American origin for some years, unless we except the Pearl, a variety of Canadian origin, very similar in size and appearance. It is very widely known and planted all over the continent of North America. It is not subject to mildew, and succeeds splendidly everywhere.

ORIGIN: by Chas. Downing, Newburgh, N.Y.; a seedling of Houghton.

PLANT: first rate in health and vigor and productiveness; an upright grower.

FRUIT: size medium; form round, often somewhat narrowed toward apex; skin smooth, transparent green with distinct light green ribs, and a thin whitish bloom.

FLESH: light green; tender, sweet and good.

VALUE: for market, first class.

SEASON: medium.

KEEPSAKE.

KEEPSAKE.

A very good commercial gooseberry, which succeeds in many parts of Ontario.

ORIGIN: England.

BUSH: vigorous; productive; very little subject to mildew.

BERRY: medium to large; form nearly round; color greenish white; skin smooth; flavor sweetish.

QUALITY: very good.

VALUE: market, first class.

PEARL.

The Pearl gooseberry has been widely planted in the commercial gardens of Canada and the United States. It is certainly a magnificent cropper, but it is very difficult indeed to distinguish the berry from the Downing, except that it averages a trifle larger.

ORIGIN: London, Ontario, by Mr. Saunders; a cross between Houghton and Red Warrington.

PLANT: healthy, not subject to mildew; upright, spreading; first rate in vigor and in productiveness.

FRUIT: medium, round, often narrowing toward apex; skin smooth, transparent green, with thin whitish bloom and light green ribs.

FLESH: light green, tender, sweet and good.

VALUE: market, very much the same as Downing.

SEASON: medium.

PEARL

RED JACKET (*Josselyn*).

One of the best gooseberries for the Ontario fruit grower, either for home use of for market.

ORIGIN: at London, Ont., by Dr. Wm. Saunders.

PLANT: an excellent grower; free from mildew; almost equal to Pearl in productiveness.

BERRY: form round oval; color reddish green, shading into red; skin smooth and transparent, rather tender; texture juicy; flavor rich.

QUALITY: cooking, very good.

VALUE: market, first class.

SEASON: medium.

RED JACKET.

WHITESMITH.

One of the best of the English varieties for cultivation in Ontario; succeeds on clay land, with northern aspect. On the sandy soil of the Niagara district it is much affected by mildew.

ORIGIN: England.

PLANT: upright, fairly productive, fairly vigorous.

FRUIT: large, oval, downy, with distinct regular veins; green, and when ripe sweet and agreeable.

QUALITY: very good for home uses.

VALUE: first class for market.

SEASON: early.

WHITESMITH.

INDUSTRY.

INDUSTRY (*Wyndhams*).

ORIGIN: England.

BUSH: hardy, vigorous; one of the freest from mildew of all English varieties.

FRUIT: round to oval; medium to very large; quality good to very good;

MARKET: excellent.

SEASON: early.

THE RASPBERRY

The raspberry is the most popular bush fruit grown in Ontario, and as it follows the strawberry in season the consumer is well supplied with these two fruits most of the summer. The raspberry being a native of Ontario, is hardy in almost all parts of the Province, hence it is cultivated over a very wide area.

Like the other bush fruits, the raspberry does best when grown in a cool, moist, but well-drained soil. While this soil should be of good quality, if it is very rich in nitrogen the growth may be too rank and in some localities the canes on this account are more liable to winter injury. The best success is usually obtained with a sandy loam or loam, although the raspberry will do fairly well in most kinds of soil. The preparation of the land should be the same as for other bush fruits. The plants may be set either in fall or spring, although if young growing suckers are used they may be planted successfully any time in the early part of the summer where the soil is moist.

Red raspberries are usually planted in rows seven and one-half feet apart with the plants three feet apart in the rows, although they may be cultivated longer and better if grown in hills about five feet each way, and for the amateur this is the best way to grow them. The cultivation of the raspberry should be thorough to retain moisture, as in the fruiting season a good supply of moisture is very important. Some growers prefer pinching back the canes in summer when they are from eighteen inches to two feet in height, believing that they get a better crop by so doing, but this system is not recommended as it has been found by experiments that red raspberries succeed better when the growth is not headed back in summer. Sometimes, also, the pinching is delayed and the laterals which are made do not ripen thoroughly and the canes are injured by winter. It is best to let the canes make full growth in summer, and if they are very tall they may be headed back to three or four feet in height before growth begins in the spring.

Black raspberries are planted most successfully in the spring. They should be set rather shallow, as if planted deep they will not grow. Stockier plants will be obtained if the plants are set in a furrow and lightly covered with soil, applying more soil as the plants grow until the field is level. Pinching back in summer is a good practice with black raspberries, as it makes the plants stockier and better able to withstand storms.

The thinning out of the canes may be done in fall or spring. Seven or eight of the strong canes of red raspberries to a hill and three or four of black raspberries are sufficient to leave. If the raspberries are grown in a hedge row the weakest canes should be removed, leaving those which are to fruit about six inches apart. The raspberry plantation should be kept well supplied with plant food, but a too liberal use of nitrogenous fertilizers, as previously stated, should be avoided.

In the colder parts of the country it is a very good practice to bend the canes down in the fall for better protection in winter, the canes being held in place by covering the tips with soil. By adopting this plan serious winter injury rarely occurs.

VARIETIES RECOMMENDED.

General List, approved by the Board of Control.

Black: Hilborn, Older, Gregg, Smith Giant.
Purple: Columbian, Shaffer.
Red: Marlboro, Herbert, Cuthbert.
White: Golden Queen.

DISTRICT LISTS.

NIAGARA DISTRICT

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment).

S. H. Rittenhouse, Jordan Harbour.

Red: Marlboro, Cuthbert.
Black: Gregg.

BURLINGTON-OAKVILLE DISTRICT

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto).

A. W. Peart, Burlington.

Red: Marlboro, Herbert, Cuthbert.

ESSEX PENINSULA

(Including Essex, Kent, and Pelee Island).

J. L. Hilborn, Leamington.

Black: Kansas, Hilborn, Gregg.
Red: Marlboro, Cuthbert.
Yellow: Golden Queen.
Purple: Columbian.

LAKE HURON DISTRICT

(Including Counties of Huron and Bruce).

D. F. Hamlink, Goderich.

Black: Conrath, Hilborn.
Red: Marlboro, Herbert, Cuthbert.
White: Golden Queen.

GEORGIAN BAY DISTRICT

(Including northern portions of the Counties of Grey and Simcoe, bordering on the Georgian Bay).

J. G. Mitchell, Clarksburg.

Red: Marlboro, Herbert, Cuthbert.
Black: Hilborn, Older, Gregg.

GUELPH DISTRICT

(Including the high inland counties of southwestern Ontario, i.e., Wellington, Waterloo, northwestern section of Perth, south part of Grey, Dufferin, and northwest section of Peel and Halton).

Prof. J. W. Crow, O.A.C., Guelph.

Black: Older, Smith Giant.
Red: Marlboro, Herbert, Cuthbert.
Purple: Columbian.
White: Golden Queen.

OTTAWA DISTRICT

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Black: Hilborn, Older, Cumberland.
Red: Marlboro, Herbert.
Yellow: Golden Queen.

ALGOMA DISTRICT

(Including the islands of Manitoulin and St. Joseph, and a limited portion of the northern and eastern shore of the Georgian Bay).

Chas. Young, Richard's Landing

Red: Marlboro, Louden.
White: Brinckle Orange (for quantity only).

DESCRIPTION OF VARIETIES

CAROLINE.

A very productive variety, but of little use for market because too soft for shipping, and not in favor for home use because of its ordinary quality.

ORIGIN: at New Rochelle, N.Y., by S. P. Carpenter; supposed seedling of Brinckle's Orange.

FRUIT: medium size; form round; color pinkish yellow; seeds small, close, easily parted from each other and from stalk; flesh juicy, sweet, lacking in flavor.

QUALITY: only fair for all purposes.

VALUE: second class for market.

SEASON: early.

CONRATH.

CONRATH (slightly reduced).

One of the best blackcaps for profit.

ORIGIN: Michigan, in 1886; a chance seedling near Ann Arbor; introduced by Conrath Bros.

BUSH: vigorous, healthy, productive, resistant to drouth.

BERRY: large; firm; black.

QUALITY: good for either cooking or dessert.

VALUE: for market, very good.

SEASON: early.

ADAPTATION: succeeds well at our Lake Huron station. Highly recommended in Catalogue of American Pomological Society for Ontario, Michigan and New York.

COLUMBIAN.

Valuable for cooking, canning and table use; but not popular in color as a market berry.

ORIGIN: a supposed seedling of Cuthbert, crossed with Gregg, at Oneida, N.Y.

PLANT: a strong, vigorous grower; very productive.

BERRY: size large; color purple; texture fairly firm, moderately juicy; flavor nearly sweet.

QUALITY: very good for cooking; fair for dessert.

VALUE: market, second class.

SEASON: medium.

CUTHBERT (*Queen of the Market*).

Previous to the introduction of the Cuthbert, many varieties of raspberries were grown for profit, such as Turner, Philadelphia, Highland Hardy, etc., but these have given place entirely and are heard of no longer. So prolific has this variety proved itself that acres have been planted by fruit growers throughout Ontario, and immense quantities of its fine fruit sent into our best markets. A favorite for canning factories.

ORIGIN: chance seedling in the garden of Thomas Cuthbert, Riverdale, N.Y.

PLANT: vigorous, canes strong, often six feet high or more on rich sandy loam, not too dry; sometimes branching; very productive; spines short, stout, numerous, suckers almost too freely and young growth needs to be kept within bounds.

FRUIT: large; color bright crimson; form conical, obtuse at apex; seeds small, compact, part easily from stalk when very ripe; flesh firm, fairly juicy, sweet, agreeable.

SEASON: medium.

QUALITY: very good for cooking; good for dessert.

VALUE: first class for market.

CUMBERLAND.

CUMBERLAND.

A promising black cap.

ORIGIN: by David Miller, Camp Hill, Pennsylvania, in 1896.

PLANT: vigorous; productive.

BERRY: size very large; form oval; color black; texture firm; flavor very pleasant.

QUALITY: dessert or cooking, very good.

VALUE: market, first class.

SEASON: early.

COLUMBIAN.

CUTHBERT.

GOLDEN QUEEN.

A good yellow variety; not grown for market, the red colored varieties being more in demand.

ORIGIN: New Jersey; a sport of the Cuthbert; 1883.

BUSH: vigorous; very productive; hardy.

BERRY: medium to large; roundish conical; color rich golden yellow; similar to Cuthbert except in color.

FLESH: tender; juicy; sweet.

QUALITY: dessert good; cooking good.

VALUE: market, second class.

SEASON: medium.

GOLDEN QUEEN.

KANSAS.

One of the newer black caps.
ORIGIN: chance seedling in Kansas, U.S., about 1884.
BUSH: vigorous; very thorny; propagation easy; tender in Lake Huron district.
BERRY: large; roundish; color shining black.
FLESH: firm; moderately juicy; flavor mild, pleasant.
QUALITY: very good for canning, pies, etc.
VALUE: market, first class.
SEASON: medium.

LOUDON.

A good market variety, the berries being a little larger than Cuthbert, but not quite equal to it in quality.

ORIGIN: raised by F. W. Loudon, of Wisconsin, from seed of Turner crossed with Cuthbert.

PLANT: hardy; very productive, but not very vigorous; canes very slightly branched, and have strong buds which produce the fruiting branches; pinching back the tips is, therefore, not wise.

BERRY: size large; form conical; color red, attractive; grains large, inclined to crumble; texture firm; flavor fair.

QUALITY: dessert or cooking fair.

VALUE: first for market.

SEASON: medium.

GREGG.

GREGG.

One of the best late black caps for market purposes; an excellent shipper and also much valued for evaporating.

ORIGIN: on the Gregg farm, Ohio County, Indiana, in 1866.

PLANT: vigorous; fairly hardy; canes upright, clean and smooth, rather difficult of propagation; very productive.

BERRY: size large; color black with grey bloom; texture firm, moderately juicy; flavor sweet.

SEASON: late.

HERBERT.

A valuable red raspberry for the commercial plantation; combining the good qualities, hardiness, productiveness and earliness.

ORIGIN: a chance seedling in the garden of Mr. R. B. Whyte, Ottawa, about the year 1890; introduced by the Renfrew Nursery Company.

BUSH: hardy, enduring the cold winters at Ottawa with a temperature of 30 below zero; vigorous; about equal to Cuthbert; productive.

BERRY: large; color, bright red; form, somewhat oblong; texture, a little tender, juicy; flavor, sweet and excellent.

QUALITY: very good for all purposes.

VALUE: market, first class.

SEASON: earlier than Cuthbert.

HERBERT.

HILBORN.

HILBORN.

A favorite black cap for market in some localities.

ORIGIN: a chance seedling, introduced by W. W. Hilborn, of Leamington, Ontario, in 1886.

BUSH: hardy; vigorous; productive.

FRUIT: medium to large, about the size of Gregg; color black; texture firm, juicy; flavor rich and good.

QUALITY: first class for dessert or cooking.

VALUE: market, first class.

SEASON: early.

MARLBORO.

This raspberry has been coming gradually to the front ever since its introduction about the year 1880. The old Highland Hardy for a while disputed its place as an early market berry, but the superior size and beauty of the former soon caused the latter to give place entirely, until Marlboro and Cuthbert have been for many years the two leading varieties of red raspberries to cover the season. The Marlboro thrives best on a heavier soil than that suited to the Cuthbert, and a little drier and heavier subsoil.

PLANT: fairly vigorous; canes short, stout, upright, without branches; propagated by suckers; fairly productive.

BERRY: round; color light red; seeds close and firm; flavor mild, pleasant; texture rather seedy.

QUALITY: fairly good.

VALUE: market, first class.

SEASON: early.

MARLBORO.

MILLER.

A promising berry for near markets.

ORIGIN: found near Wilmington, Delaware.

PLANT: strong; vigorous; hardy; productive.

BERRY: medium; color bright red; texture tender; flavor sweet, pleasant.

QUALITY: very good.

SEASON: early.

PHŒNIX.

Considered a profitable market variety for some growers, but by others reported as only moderate productive.

ORIGIN: United States.

BUSH: fairly vigorous; hardy; not very productive.

BERRY: large; red.

QUALITY: very good.

SEASON: medium.

OLDER.

A popular black cap in Iowa; counted a failure in Michigan; reported upon favorably at the Lake Huron station.

ORIGIN: a chance seedling in the garden of Mr. Older, of Independence, Iowa, in 1872.

PLANT: vigorous; hardy at Ottawa, Guelph, and Walkerton; canes of a trailing nature and need cutting back; endures drouth well; productive.

BERRY: large; color jet black without bloom; texture juicy and moderately firm; flavor pleasant.

QUALITY: good.

SEASON: early to medium.

OLDER.

RELIANCE.

A fairly good early table berry; rather soft for shipment; resembles Turner.
ORIGIN: New Jersey; a seedling of the Philadelphia raspberry.
BUSH: healthy; canes strong and vigorous; very productive.
BERRY: size medium; color dark red; texture inclined to be soft and juicy; flavor sweetish, ordinary.
QUALITY: dessert and cooking, fair.
VALUE: first class for near market; second class for shipping.
SEASON: early.

TURNER.

A fine table berry, and valuable for the home garden; a good market berry, but rather soft for distant shipment.
ORIGIN: by J. B. Turner, Jacksonville, Illinois.
PLANT: very hardy; fairly vigorous, making a good strong cane; productive.
BERRY: form roundish conical; size medium; color dark red; texture soft; flavor sweet, excellent.
QUALITY: dessert or cooking, very good.
VALUE: home market, first class; distant market, second class.
SEASON: medium.

SHAFFER.

On its first introduction the Shaffer created much enthusiasm by reason of its thrift, productiveness and good quality. It is still considerably grown for canning purposes, but its color is not a favorite one in the market.

ORIGIN: on farm of Mr. Shaffer, Wheatland, N.Y., in 1869; introduced by Chas. Green, Rochester, in 1881.

SHAFFER.

PLANT: very vigorous; canes grow six or seven feet high, if not pinched back; very productive; propagates from tips.

FRUIT: large; color purple; form roundish; grains large, loose, easily separated from stalk; flesh very juicy and tender; flavor sweet, rich and very agreeable.

QUALITY: very good for cooking; good for dessert.

VALUE: second class for market.

SEASON: medium.

SMITH GIANT.

A very promising black raspberry for the commercial plantation.

ORIGIN: with A. M. Smith, St. Catharines, Ont.

PLANT: vigorous, fairly hardy and quite productive.

FRUIT: very large; black, with heavy bloom.

QUALITY: dessert or cooking, very good.

VALUE: market, one of the best.

SEASON: late.

SMITH GIANT.

STRAWBERRY-RASPBERRY.

Considered somewhat valuable for canning, presenting an attractive appearance in the jar; interesting as a curiosity, but of no commercial value; may become a troublesome weed.

PLANT: easily propagated by suckers and rootstocks; scantily productive; stalks grow eighteen inches high and die down in the fall; fruits on growth of the current season.

BERRY: large; color a beautiful bright red; quality poor, but somewhat improved by cooking.

VALUE: market, third class.

SEASON: July to September.

4. The Strawberry

The strawberry is the most popular fruit cultivated in Ontario. This is doubtless due in part to the intrinsic value of the strawberry itself, which is one of the most delicious of fruits, but it is believed that the popularity of the strawberry comes largely from the fact that it can be grown by almost every one, as, unlike most fruits, very little land is required to produce sufficient for home consumption.

Strawberries can be grown in all parts of Ontario where the soil is suitable, hence large quantities are produced and consumed annually, and owing to the difference in the time of ripening between the southern and northern parts of the Province, the season is lengthened very much, and furthermore, the strawberries of one district do not come in such close competition with those from another as they would do if all ripened at the same time.

Strawberries will succeed on almost any rich, well-drained soil, but the largest crops are, it is believed, produced on a deep, warm sandy loam, which is retentive of moisture. It is important, however, to avoid planting strawberries where water is likely to lie at any time, as surface water is very injurious to the plant, and if water freezes over strawberries in winter they are almost sure to be killed.

In preparing soil for this fruit, it should be made very rich. There are no records known where land was made too rich for strawberries. There is nothing so good as well-rotted manure for this purpose. Fresh manure is not so good, as it usually contains many weed seeds which will germinate after the manure is applied. The manure should be thoroughly worked into the surface soil early in the spring, for if this is not well done the soil will dry out, the conservation of moisture being important in growing strawberries. Strawberries also do well after clover, which in part takes the place of manure. The best time to set out the plants is early in the spring. Fall planting is not recommended, as although there is fair success in wet seasons, in a dry year the plants usually suffer.

When the ground has been marked off into rows about 3½ feet apart with cross rows about 18 to 20 inches apart, the plants are set at the intersections of the rows. The usual practice with large growers is for one person to open a hole with a spade, and another, preferably a boy, to place the plant, the soil being then pressed against the plant with the foot. In smaller plantations, planting with a trowel will be found very satisfactory. The chief essentials in planting are first to have the crown of the plant a little below the surface of the soil when it is pressed down. If the crown comes above the surface of the soil the plant is almost sure to die from drying out, and set too deep the plant is liable to rot. The second important point is to make the soil firm about the plant, thus causing the moisture to rise to the roots. Strawberry plants are almost sure to die, especially in a dry time, if this precaution is not taken. A third essential, is to spread the roots in the cleft made by the spade, as although the plants will live even if this is not done, they will start quicker and thrive better if the roots are properly spread. After the plants are set cultivation should be thorough to conserve moisture and encourage the production of young plants early in the season, as the earlier these young plants are produced and become rooted, the larger crop they are likely to bear the next season.

All flowers should be pinched off the first season, as they exhaust the strength of the plant and delay the production of runners. The most common method of growing strawberries is in the matted row. Grown in this way there should be a row of plants about two feet in width by autumn. During the summer, as runners are made, they should be placed about six inches apart and held with a little soil so as to give the plants the best chance to develop. After a row of the required width has been formed, later plants should, if possible, be cut out by hand and with the cultivator, so that the rows will not become too crowded nor too wide. A full crop should be obtained the second season. Hill culture and narrow rows are recommended in some quarters, but while finer fruit is obtained than by the matted row system, more labor is involved.

It is advisable to cover the strawberries lightly with straw after the ground freezes, to prevent the alternate thawing and freezing of the ground in winter and early spring. This covering should be removed in the spring before growth begins.

To get the best results only one crop should be taken from a strawberry plantation. If the land is very clean and the varieties used do not run much, two crops can be removed with profit. As a rule, however, the labor involved in destroying weeds, and the deterioration in size of fruit, makes it more profitable to plough up the plantation after the first crop.

It should be thoroughly understood by those intending to plant strawberries that some varieties have imperfect flowers and will not produce fruit unless a perfect flowering sort is planted near to pollenize the imperfect flowers. One row of the perfect variety to three of an imperfect is usually sufficient. There are many new varieties of strawberries introduced every year, but few of these are better or even as good as those already on the market. However, the old kinds are constantly giving place to the new, and it is wise for the fruit grower to learn which new varieties are giving the best results. Many varieties are described in this report, but it will be found that but few are recommended.

Varieties Recommended.

General List, approved by the Board of Control.

Commercial: Bederwood (P.), Splendid (P.), Warfield (Imp.), not suited to light sandy soil, Greenville (Imp.), Williams (Imp.), Saunders (P.), Sample (Imp.), Irene (Imp.), Buster (Imp.), Parsons Beauty (P.).

Note.—These varieties vary somewhat in order of their ripening season. In selecting varieties for planting, perfect-flowered varieties should be included to fertilize those having imperfect flowers.

DISTRICT LISTS.

Niagara District

(Including the Niagara Peninsula from the Niagara River to Hamilton and north to the escarpment).

Robert Thompson, St. Catharines.

Williams and Brandywine for long distance shipment.

S. H. Rittenhouse, Jordan Harbor.

Dunlap, Ozark, Sample, Williams, Stevens.

Fonthill District

(Including Townships of Pelham, Stamford and Thorold).

G. C. Brown, Fonthill.

Lovett, Williams, Sample, Parsons.

Burlington-Oakville District

(Including the southern part of the counties bordering on Lake Ontario between Hamilton and Toronto).

A. W. Peart, Burlington.

Bederwood, Dunlap, Williams, Gibson, Glen Mary, Leader.

W. F. W. Fisher, Burlington.

Dunlap, Gibson, Haverland, Bubach, Glen Mary, Williams.

Brant District

(Including Counties of Brant, Oxford, Middlesex and southwestern part of Perth).

J. C. Harris, Ingersoll.

Warfield, Dunlap, Bederwood, Haverland, Williams, Sample, Enhance.

Lake Erie District

(Including approximately the Counties of Haldimand, Norfolk, Elgin, Welland, excluding Fonthill District).

Jas. E. Johnson, Simcoe.

Warfield, Dunlap, Splendid, Sample, Enhance.

Guelph District

(Including the high inland counties of southwestern Ontario, *i.e.*, Wellington, Waterloo, northwestern section of Perth, south part of Grey, Dufferin, and northwest section of Peel and Halton).

Prof. J. W. Crow, O.A.C., Guelph.

Bederwood (P.), Splendid (P.), Warfield (Imp.), Williams (P.), Parsons (P.).

St. Lawrence Valley District

(Including the valley of the St. Lawrence River from Kingston to the eastern boundary of the Province).

Harold Jones, Maitland.

Belt, Williams, Wolverton, Climax, Saunders, Miller.

Ottawa District

(Including the Ottawa Valley and the eastern portion of the Province not elsewhere enumerated, south of latitude 46 deg.).

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Bederwood (P.), Splendid (P.), Warfield (Imp.), not suited to light soil; Greenville (Imp.), Parsons Beauty (P.), Pocomoke (P.), Sample (Imp.), Buster (Imp.).

Algoma District

(Including the islands of Manitoulin and St. Joseph, and a limited portion of the northern and eastern shore of the Georgian Bay).

Chas. Young, Richard's Landing.

Clyde, Haverland, Glen Mary, Brandywine.

DESCRIPTION OF VARIETIES

ANNIE LAURIE.

This is a very late variety, also one of the best quality. It may be taken as a standard for quality and flavor.

ORIGIN: a seedling grown by John F. Beaver, of Ohio, in 1889.

PLANT: very healthy and a good grower, making plenty of runners for a fruiting row. No rust; perfect blossom; moderately productive.

FRUIT: berries are large and round, like the Jersey Queen, with gold seeds prominent. A very bright glossy scarlet, making a fine appearance.

FLESH: pinkish white, of the very finest quality; a fine table variety.

SEASON: late.

BEDERWOOD.

One of the most productive of the early varieties.

ORIGIN: with Bederwood, of Illinois.

PLANT: vigorous; inclined to rust; very productive. Stevenson ranks it "as the standard of productiveness for early varieties," blossom perfect, an excellent pollenizer.

BERRY: size small; form roundish; color light vermilion.

FLESH: texture soft; flavor sweet, ordinary.

QUALITY: dessert, poor; canning, fair.

VALUE: near market, first class; distant, second class.

SEASON: early.

BELT.

ORIGIN: this berry comes from Ohio, having been originated by Wm. Belt, of that State. It is being grown largely as a fancy berry.

PLANT: large and strong, but rusts sometimes very badly; perfect blossom; quite productive.

BELT.

FRUIT: large to very large, conical; bright scarlet in color; firm.

FLESH: pink slashed with white; nice mild flavor; best quality.

SEASON: medium to late.

BRANDYWINE.

Highly valued in some sections.

ORIGIN: seedling of Glendale x Cumberland, raised by E. Ingram, of Pennsylvania; introduced in 1894.

PLANT: very vigorous; propagates almost too freely; perfect flowered; productive.

BERRY: large; form oblate conical; color crimson.

FLESH: texture firm; flavor aggreeable acid.

QUALITY: dessert, very good.

VALUE: market, first class.

SEASON: medium to late.

BISMARCK.

A good mid-season market berry; in some respects an improvement on its parent.

ORIGIN: grown from seed of Bubach fertilized by Bubach, by I. C. Baure, of Arkansas.

PLANT: vigorous; healthy; easily propagated; perfect flower; very productive.

BERRY: large; roundish conical; color crimson; seeds yellow.

FLESH: color pinkish; texture firm; flavor sweet.

QUALITY: dessert, very good.

VALUE: market, first class.

SEASON: mid-season to late.

BOYNTON.

This variety so closely resembles the old Crescent in its best days that it has been affirmed by some that it is the Crescent under a new name.

ORIGIN: said to be a cross between the Crescent and Sharpless; from Albany, N.Y.

PLANT: strong, vigorous, and healthy grower, making a wild, matted row; imperfect blossom; very productive.

FRUIT: medium in size; light scarlet in color; medium in firmness.

FLESH: pink; acid, but fair quality.

SEASON: early, medium.

BUBACH.

BUBACH.

A standard market berry, of the largest size.

ORIGIN: a seedling raised by J. G. Bubach, of Illinois.

PLANT: healthy; vigorous; does not make many runners; imperfect blossom; only fairly productive.

BERRY: very large; conical; irregular; color scarlet; showy.

FLESH: red, agreeable and acid.

QUALITY: dessert, good.

VALUE: near market, first class; one of the best.

SEASON: medium.

BUSTER.

A valuable late variety, which seems to adapt itself well to varied conditions. In the extensive variety tests both at the Central Experimental Farm, Ottawa, and at the Ontario Agricultural College, Guelph, it has for years ranked among the most productive sorts.

ORIGIN: supposed to be seedling of Bubach, raised by Mr. Stone, of Illinois.

PLANT: extra large, with very long, stout stalks and healthy foliage, remarkably free of rust; propagates readily and usually makes a good wide row of plants. Blooms late and flowers are imperfect, requiring a late blooming perfect flowered variety, such as Williams, to insure fertilization. Very productive.

BUSTER.

FRUIT: very large and well formed, quite regular in shape. Like Clyde, it is rather pale in color for a first-class berry. This is its most objectionable feature. Seeds deeply pitted. Moderately firm for so large a berry; fair quality, somewhat acid.

SEASON: among the latest.

ADAPTATION: seems to adapt itself well to varied conditions and is favorably reported upon from many sources. (*Hutt.*)

CLYDE.

At one time a universal favorite as a commercial berry, but has not held up its early records.

ORIGIN: seedling of Cyclone about 1890, by Dr. Stayman, of Kansas; the Cyclone itself being a seedling of Crescent.

PLANT: very healthy, but wilts down under a hot sun; easy of propagation; perfect flowered.

BERRY: very large; form roundish conical; color light scarlet.

FLESH: moderately firm; color pinkish white; flavor very pleasant.

QUALITY: dessert, very good; canning, poor.

VALUE: second class for near market.

SEASON: early to medium.

CARRIE.

The Carrie would appear to have a bright future before it. It is one of the late sorts bidding for public favor.

CARRIE.

ORIGIN: seedling of Haverland, by Mr. Thompson, of Virginia.

PLANT: large, vigorous and healthy, making long and strong runners and plenty of them; it somewhat resembles Haverland; not so productive; imperfect blossom.

FRUIT: the fruit is not so long as Haverland; very firm; color bright scarlet, with gold seeds.

FLESH: white and solid; good flavor.

SEASON: medium.

DUNLAP (*Senator Dunlap*).

A fine mid-season market berry, said to be better in quality and a better shipper than its parent.

ORIGIN: Ohio; a seedling of Warfield.

PLANT: small; vigorous, resistant of drouth; very productive; blossoms perfect.

BERRY: size medium to large; form long conical with short neck; color dark crimson.

FLESH: color red; texture firm.

QUALITY: very good.

VALUE: market, first class.

DUNLAP.

ELEANOR.

The Eleanor is one of the extra early kind; a good healthy vigorous grower; fruit good size, fine shape; in wet seasons it has a kind of mildew like on the Michel's.

ORIGIN: New Jersey, a chance seedling found by Mr. Coombe.

PLANT: very healthy, vigorous grower, small and slender, dark in color, making many runners; perfect blossom; quite productive.

FRUIT: color dark scarlet or crimson; medium in firmness.

FLESH: red, white centre; acid, but good flavor.

SEASON: one of the earliest.

EMPEROR.

ORIGIN: by John Little, Granton, Ont.
PLANT: large, vigorous, healthy; quite productive; perfect flowered.
BERRY: very large; conical, sometimes ribbed; color dark red.
FLESH: reddish pink almost to the centre; texture firm.
QUALITY: good.
SEASON: medium to late.

EMPRESS.

Very like the Emperor and from the same source, originated by the late John Little. The plant is very healthy, strong, productive and a vigorous grower. The fruit is dark red and attractive, and of good quality; season, medium to late; blossoms perfect.

EXCELSIOR.

Popular in some sections because very early.
ORIGIN: Arkansas.
PLANT: vigorous; propagates easily; sometimes inclined to leaf rust; fairly productive; blossom perfect.
BERRY: medium; form roundish, somewhat conical; color bright red.
FLESH: texture firm; flavor very pleasant.
QUALITY: very good.
VALUE: market, second class.
SEASON: very early.

GEISLER.

ORIGIN: a chance seedling found in Michigan, somewhat resembling the Seaford in shape and size.
PLANT: a very strong plant, making plenty of runners; very healthy, no sign of rust and quite productive; perfect blossom; a very early bloomer, one of the first.
FRUIT: large, bright dark scarlet, round to oblong in shape; solid.
FLESH: light pink in color, medium in firmness and of good quality.
SEASON: early to medium.

GANDY.

One of the best very late varieties.
ORIGIN: New Jersey; seedling of Jersey Queen x Glendale.
PLANT: healthy; blossoms perfect; a shy bearer.
BERRY: large; form conical, regular; color glossy crimson.
FLESH: color pink; texture firm.
QUALITY: dessert, very good; canning, excellent.
VALUE: market near or distant, first class; an excellent shipping berry.
SEASON: very late.

GLEN MARY.

Considerably planted for market purposes on account of its size and productiveness.
ORIGIN: a chance seedling found by J. A. Ingram, of Pennsylvania.
PLANT: vigorous; healthy; foliage dark green; propagates readily; blossoms perfect; fruit stem stout; productive.
BERRY: large to very large; form round conical, ribbed, with green tip; color dark crimson.
FLESH: pink and white; texture firm; flavor slightly acid.
QUALITY: dessert, fair; canning, good.
VALUE: market, first class; a good shipper.
SEASON: medium to late.

GREENVILLE.

A good commercial berry, which seems to succeed everywhere.

GREENVILLE.

ORIGIN: a chance seedling of Bubach found in Ohio.

PLANT: vigorous; healthy; propagation easy; blossoms imperfect; very productive.

BERRY: large but not quite as large as Bubach; form obtuse conical, approaching heart shape; color scarlet.

FLESH: pink to white; somewhat hollow; texture moderately firm; flavor pleasant.

QUALITY: very good.

VALUE: first class, especially for near market.

SEASON: medium.

HALES 11.59 P.M. (*Midnight*).

ORIGIN: seed from Haverland crossed with Parker-Earle; introduced by J. H. Hale, of Connecticut.

PLANT: strong and healthy, does not resemble either parent; makes plants only sparingly, but makes a good fruiting row; the runners are strong, fairly productive, and very late; blossom, perfect.

FRUIT: the berry is medium in size, flat and conical; color, light, almost white on under side; texture firm; flavor fine.

FLESH: pinkish, meaty, good eating.

HAVERLAND.

A good market variety, which succeeds everywhere; widely grown; the berries are a little soft for shipment.

ORIGIN: with a Mr. Haverland, of Ohio.

PLANT: very vigorous; very healthy; foliage light in color; fruit stalk long and not always able to support the load of fruit; blossoms imperfect; very productive.

BERRY: size large; form long, conical; color bright scarlet.

FLESH: pinkish; texture soft; flavor sweet.

QUALITY: dessert, fair; canning, fair.

VALUE: near market, first class; distant market, second class.

SEASON: early.

HOWARD'S No. 4.

A seedling originated by Mr. A. B. Howard, of Massachusetts.

PLANT: a strong, healthy good grower, very productive.

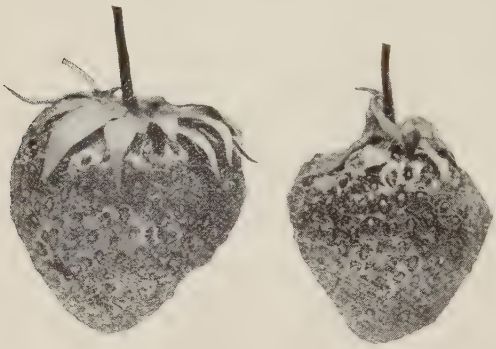
BERRY: large, conical, very regular; bright dark scarlet; large, and of great beauty.

QUALITY: very good.

SEASON: medium to late.

IRENE.

A good late variety, well worthy of a place in any collection for home use or market. Has been under test at the Ontario Agricultural College, Guelph, for several years, and ranks among the first half dozen for productiveness and general market value. An excellent canning variety because of its rich, dark color.



IRENE.

PLANT: not large, but very vigorous and healthy; makes plenty of runners; blooms late, and is imperfect flowered, requiring a late blooming pollenizer to insure good fertilization; very productive.

FRUIT: medium size; good shape; very smooth and regular; rich, dark crimson in color, with bright yellow seeds and varnished appearance; very attractive; firm, and good shipper; brisk acid; fairly good quality.

SEASON: medium to late, has a long season of fruiting.

ADAPTATION: adapts itself well to varied soils, and has been reported upon favorably by experimenters all over the Province to whom it has been sent for co-operative testing. Has not done so well at Ottawa as at Guelph. (*Hutt.*)

KLONDIKE.

A good late variety.

ORIGIN: Massachusetts.

PLANT: vigorous; somewhat subject to rust; easily propagated; quite productive.

BERRY: size large; form roundish conical, somewhat irregular; color scarlet; large low seeds.

FLESH: pink; moderately firm.

QUALITY: fair.

LOVETT.

A popular main crop strawberry; by some growers preferred to either Williams or Saunders.

ORIGIN: Crescent x Wilson, by J. H. Norris, of Kentucky.

PLANT: vigorous; foliage somewhat subject to rust; fruit stalks short and drooping; perfect flowered; productive.

BERRY: large; form round, conical; color dark red.

FLESH: color reddish; texture firm; flavor pleasant subacid.

QUALITY: dessert, good; canning, very good.

VALUE: near or distant market, first class.

SEASON: medium.

LUTHER (*August Luther*).

One of the extra early varieties; endures drouth well; succeeds generally.

PLANT: small; good grower; healthy; perfect in flower; fairly productive.

BERRY: medium; roundish conical, sometimes necked; color scarlet, with yellow seeds; texture moderately firm.

QUALITY: good.

VALUE: first class for early market.

SEASON: early; ripens with Michel.

LOVETT.

MARGARET.

ORIGIN: Ohio, from the seed of the Crawford, by Mr. Beaver.

PLANT: large and strong, sending out the largest runners of any sort; very healthy; perfect blossom; quite productive.

FRUIT: large, very regular, crimson in color; seeds golden, solid and firm.

FLESH: red; inclined to tartness, but of good quality.

SEASON: medium.

MASTODON.

This is very like Bubach, both in plant and fruit, and quite as good.

ORIGIN: introduced by James Lippincott, Jr., Mount Holly, N.J.

PLANT: strong, large dark foliage; very healthy; makes plants freely enough for a good fruiting row; imperfect blossom; fruit stalk is short, thick and strong.

FRUIT: very large; bright crimson and very showy.

FLESH: pink; medium as to firmness and good quality.

SEASON: medium.

MASTODON.

MARSHALL.

This variety has, perhaps, received more favorable notice than most others of recent introduction. It is vigorous in growth, leaves very large and produces very large, beautiful, dark crimson berries of fine quality.

MARSHALL.

ORIGIN: a chance seedling found growing on a stone heap by Mr. Ewell, of Massachusetts.

PLANT: a vigorous grower, large leaves, somewhat tender both in foliage and blossom and subject to rust; medium in color, first growth being yellow; perfect blossom; fruit stem strong and able to bear up the immense berries; medium in productiveness.

FRUIT: of the largest size; dark crimson, firm and fine looking, quite regular in shape, *i.e.*, each berry is of same shape, but ribbed and tough; seed imbedded.

FLESH: red, with a dash of white in centre, solid, fine quality; one of the best for dessert.

SEASON: early to medium.

ADAPTATION: does its best only on good soils and under highest cultivation; a fine one for amateurs.

MICHEL.

A favorite very early berry with some growers; a comparative failure with others; widely planted in Ontario.

ORIGIN: chance seedling of Crescent, found by J. S. Michel, Judsonia, Arkansas.

PLANT: vigorous; propagation rapid; fairly productive on some soils, on others not productive; foliage light colored; perfect flowered.

BERRY: size small to medium; form round conical; color dull red, withered appearance.

FLESH: pinkish; texture tough; carries well.

QUALITY: good.

SEASON: extra early.

MONITOR.

The Monitor originated from a chance seed in the orchard of L. T. Russell, Missouri, on ground where formerly Crescent and Capt. Jack grew. It has some of the qualities of both parents, the productiveness of the Crescent and the vigorous foliage of Capt. Jack.

PLANT: vigorous and healthy; foliage very dark green, glossy. The plant is small and makes almost too many runners; stands dry weather well and is very productive, blossom perfect.

FRUIT: the berry is large, roundish in form, and bright scarlet. The vigor of the plant seems to be such that it is able to mature and ripen its immense crop, there being no small berries.

FLESH: firm and good flavor; pinkish inside.

SEASON: early to late.

NETTIE.

ORIGIN: one of Black's pedigree seedlings; it is a strong competitor of Hunn for extreme lateness.

PLANT: of medium size; quite healthy and a good runner, making plants freely; fairly productive; blossom imperfect.

FRUIT: large, ribbed, rough, of quite light color; seeds dark; flavor sour, but good; texture fairly firm.

FLESH: light colored, almost white.

NICK OHMER.

A good medium to late variety, of excellent quality.

ORIGIN: seedling raised by John F. Beaver, of Ohio.

PLANT: vigorous, stocky; propagation easy; healthy; foliage dark; perfect flowered.

BERRY: large, with some small ones; form roundish conical, smooth and regular; color glossy red with yellow seeds.

FLESH: pinkish toward outside and white at centre; texture very firm; flavor very pleasant.

QUALITY: very good.

VALUE: first to second class.

SEASON: medium to late.

PARSON'S BEAUTY.

Introduced in 1899. Originated in Maryland about 1891.

PLANT: vigorous, large number of runners; foliage moderately good, rusts slightly to considerably.

FRUIT: obtusely conical, above medium to large in size; bright red, glossy, prominent seeds.

FLESH: bright red, juicy, tender, subacid, firm; above medium quality.

SEASON: medium late.

A handsome productive variety.

PARSON'S BEAUTY.

ROBBIE.

ORIGIN: one of J. H. Black's pedigree seedlings, from New Jersey.

PLANT: good grower, perhaps not as large as the Nettie or Joe, but healthy and free from disease; fairly productive; blossom perfect.

FRUIT: good size; conical in shape; light red; good flavor; quite pleasant, though peculiar to the taste.

FLESH: salmon-colored.

SEASON: late.

RIDGEWAY.

The Ridgeway is a good medium to late berry. It somewhat resembles the old Cumberland, but is darker.

ORIGIN: a seedling of Jersey Queen and Parker Earle, by Mr. Ridgeway, of Indiana.

PLANT: strong and healthy, stools out, would be good one for hills or narrow rows; foliage free from rust; blossom perfect and large; quite productive.

BERRY: medium to large; highest scarlet color; prominent golden seeds, fine looking; medium in firmness.

FLESH: red, solid and very good quality; fine flavored.

SEASON: medium to late.

RUBY.

A good standard variety, which adapts itself well to various soils and localities.

ORIGIN: a chance seedling with Mr. Riehl, of Illinois.

PLANT: a strong, vigorous grower, makes plenty of runners; blooms about mid-season; is perfect flowered and a good pollenizer; very productive.

BERRY: large, regular in shape; a good dark crimson color; firm and of good quality.

SEASON: mid-season.

ADAPTATION: does well at Guelph, and is favorably reported upon from other sections. (*Hutt.*)

RUBY.

SAMPLE.

A profitable late market berry.
ORIGIN: Massachusetts.
PLANT: vigorous; healthy; productive; flowers imperfect.
BERRY: size large; form roundish conical; color crimson.
FLESH: tinted; texture fairly firm, juicy.
QUALITY: fair.
VALUE: market, first class.
SEASON: very late.

SAMPLE.

SAUNDERS.

SAUNDERS.

A first-class sort for medium to late market.

ORIGIN: a seedling raised by John Little, Granton, Ont., and named by him in honor of Dr. Wm. Saunders, of Ottawa.

PLANT: healthy, very little rust; very vigorous; very productive; blossom perfect; blooms late and so escapes the spring frosts; propagates easily.

BERRY: size large; form roundish conical; color glossy crimson.

FLESH: red; texture firm; flavor very pleasant.

QUALITY: dessert or cooking, very good.

VALUE: near or distant market, first class.

SEASON: medium to late.

SEAFORD.

The Seaford is a good, medium season berry.
ORIGIN: a chance seedling, introduced by Claymaker & Son, of Dover, Del.
PLANT: a strong, vigorous grower and healthy, producing large clusters of fine fruit; makes many plants; perfect blossom; very productive.
BERRY: large and fine looking; bright crimson with gold seeds imbedded; very solid and firm.
FLESH: scarlet in color; very firm and of very good quality.
SEASON: early to medium.

SHARPLESS.

The Sharpless has been before the public for a long time. In some parts it is still said to be one of the best, but in other places it is not productive enough to make it profitable for market.

ORIGIN: Pennsylvania.

PLANT: a strong, vigorous grower; large and healthy; no rust; perfect blossom; quite productive on some soils.

FRUIT: very large; light scarlet in color; glossy, gold seeds prominent, does not color well.

FLESH: white to pink; firm and very best quality; fine for the table.

SEASON: medium.

SMITH.

Very popular for canning, having the agreeable acid and firm flesh of its parent.

ORIGIN: a seedling of that old favorite, the Wilson's Albany, raised by L. Smith, of Wisconsin.

PLANT: healthy; most vigorous; blossom perfect; very productive.

BERRY: medium to large; roundish conical; irregular; color scarlet.

FLESH: texture firm; quite acid; agreeable.

QUALITY: canning or preserving, best.

VALUE: market, first class.

SEASON: early.

SPLENDID.

A first-class early to mid-season market berry.

ORIGIN: by C. H. Sumner, Illinois.

PLANT: very healthy; a good strong grower; productive; blossom perfect, a good pollenizer.

BERRY: medium to large; form roundish; color dark crimson.

FLESH: firm; flavor good.

QUALITY: dessert, very good.

VALUE: market first class.

SEASON: early to medium.

SPLENDID.

STAPLES.

ORIGIN: from seed of the Warfield, by the late Mr. Staples, of Ohio.

PLANT: quite healthy, making plenty of runners for a wide row, if needed; quite vigorous in growth; perfect blossom; a good early bloomer to fertilize early pistillates with.

BERRY: dark crimson in color, firm and good flavor; color very like Warfield; size medium to large for so early a berry.

FLESH: pink and solid; good flavor, somewhat acid, yet spicy.

SEASON: extra early.

TENNESSEE (*Tennessee Prolific*).

A very fine market berry, which has become popular wherever grown.

ORIGIN: Crescent x Sharpless, raised by Captain Hodges, of East Tennessee.

PLANT: healthy; vigorous; very productive; easily propagated; blossom perfect; blooms early.

BERRY: large; form round conical, sometimes double at the point; color bright crimson.

FLESH: color red; texture firm; flavor agreeable.

QUALITY: good.

VALUE: first class for near or distant market.

SEASON: medium.

TIMBRELL.

A fairly good late variety.

ORIGIN: chance seedling found by H. S. Timbrell, of New York State.

PLANT: healthy; vigorous; blossoms perfect; not very productive.

BERRY: size medium to large; form roundish conical; color crimson, but does not color well.

FLESH: texture very firm; flavor agreeable.

QUALITY: dessert, best.

VALUE: market, second class.

SEASON: late.

VAN DEMAN.

One of the earliest; a favorite with some growers, but not a success everywhere.

ORIGIN: Crescent x Captain Jack; raised by J. C. Bauer. of Judsonia, Arkansas.

PLANT: vigorous; productive; rusting slightly on some soils; foliage dark; fruit stalk strong enough to support the fruit; blossoms perfect.

BERRY: medium; form round conical; color dark crimson; seeds yellow, with a varnished appearance; ripens and colors all over at the same time.

FLESH: color pink; texture firm, a good shipper; flavor good.

QUALITY: dessert, very good.

VALUE: first class for market because of its season.

SEASON: very early.

VAN DEMAN.

WARFIELD.

With the housekeeper it is a favorite canning variety because of its dark rich color. It is one of the most desirable varieties for general cultivation, where the soil is not too light and dry for its growth.

ORIGIN: a chance seedling, supposed to be a cross between Crescent and Wilson, found by B. C. Warfield, of Southern Illinois.

PLANT: small, but a rampant grower, and often makes too many runners, filling the rows too thickly. Succeeds best on moist soils, and in showery seasons; often proves a failure on very dry soils or in times of drouth. Blossoms early and requires an early blooming bisexual variety, such as Splendid or Van Deman, to fertilize its blossoms; very productive.

BERRY: medium size, very regular in shape, dark rich crimson color; firm, good shipper, and excellent for canning; somewhat acid, but good quality.

SEASON: early to mid-season, holds out well if season is favorable.

ADAPTATION: does well wherever the soil is not too light and dry. (*Hutt.*)

WARFIELD.

WILLIAMS.

Widely grown in Ontario in place of the old favorite Wilson; preferred by some growers to all others.

ORIGIN: a seedling of Sharpless, raised by Mr. Williams, of Burford, Ontario.

PLANT: vigorous; somewhat inclined to rust, runners abundant, short; blossom perfect; very productive.

BERRY: large, form roundish conical; seeds sunken; color crimson, usually with a white tip.

FLESH: red; often hollow; texture firm.

QUALITY: fair.

VALUE: market, first class.

SEASON: medium to late.

WILLIAMS.

INDEX TO VARIETIES.

APPLE.

	PAGE
Albemarle	60
Alexander	23
American Pippin	47
Arabka	35
Astrachan	24
Baldwin	25
Baxter	26
Ben Davis	27
Black Ben Davis	28
Benoni	29
Bietigheimer	29
Bishops Pippin	86
Blenheim	29
Blenheim Orange	29
Blenheim Pippin	29
Blue Pearmain	30
Bogdanoff	30
Boiken	31
Borovitsky	37
Bottle Greening	31
Brockville	31
Brockville Beauty	31
Cabashea	31
Canada Red	32
Cayuga	32
Cayuga Red Streak	32
Charlamoff	35
Chenango	34
Colvert	32
Cranberry Pippin	36
Duchess	37
Dudley Winter	60
Early Harvest	38
Edgar Redstreak	83
Emporer Alexander	23
Esopus Spitzenburg	73
Fallawater	39
Fall Pippin	40
Fall Queen	48
Fameuse	41
Fanny	42
Fillbasket	38
Gideon	43
Golden Russet	44
Gravenstein	45
Greening	46
Grimes	47
Grimes Golden Pippin	47
Grindstone	47
Haas	48
Hibernal	49
Hubbardston	50
Hubbardston's Nonsuch	50
Hyslop	51
Johnathan	51
Kentish	38
King	52
King of Tompkins County	52
Lady	53
Large Yellow Bough	77
Larue	26
La Victoire	53
Livland Raspberry	53
Longfield	54
Louise	54
Lowland Raspberry	53
McIntosh	55
McIntosh Red	55
McMahon	57
McMahon White	57
Maiden Blush	56
Martha	57
Mann	58
Milwaukee	59
Newtown Pippin	60
Northern Spy	74
North Star	60
Northwestern Greening	60
Oldenburg	37
Ontario	61
Orange	62
Patten	62
Patten Greening	62
Peerless	63
Pewaukee	64
Phœnix	62
Pointed Pipka	35
Pomme de Neige	41
Porter	62
Primate	65
Princess Louise	54
Red Astrachan	24
Rhode Island Greening	46
Ribston	66
Ribston Pippin	66
Roxbury	67
Roxbury Russet	67
St. Lawrence	68
Salome	69
Scarlet Pippin	69
Scott Winter	70
Seek-no-further	71
Shiawassee	72
Shiawassee Beauty	72
Snow	41
Spitzenburg	73
Spy	74
Stark	76
Strawberry	34
Stump	75
Swayzie	75
Swayzie Pomme Grise	75
Sweet Bough	77
Tallman Sweet	78
Titovka	80
Titus Apple	80
Tolman	78
Transcendent	80
Trenton	79
Twenty Ounce Pippin	31
Vandevere	83
Walbridge	83
Wagener	81
Wealthy	82
Wolf River	83
Woolverton	54
Whitney	85
Whitney No. 20	85
Yellow Bellflower	86
Yellow Newton Pippin	60
Yellow Transparent	87
York Imperial	85

CHERRY.

	PAGE
Ambree grosse	90
Anglaise Tardive	96
Belle de Choisy	90
Belle Magnifique	96
Bigarreau of Mezel	97
Black Eagle	92
Black Tartarian	105
Choisy	90
Cleveland	90
Coe	91
Coe's Transparent	91
Downer	92
Downer's Late	92
Dyehouse	91
Eagle	92
Early Duke	97
Early Purple	92
Early Purple Guigne	92
Early Richmond	102
Elkhorn	93
Elton	93
English Morello	98
Governor Wood	107
Grenner Glas	94
Griotte d' Ostheim	100
Hative	102
Hortense	94
Kentish Pie	102
Knight	95
Knight's Early Black	95
Koslov	95
Koslov Morello	95
Late Duke	96
Magnifique	96
May Duke	97
Mezel	97
Monstreuse de Mezel	97
Montmorency	99
Morello	98
Napoleon	98
Napoleon Bigarreau	98
Ohio	101

CHERRY.—*Continued.* PAGE
Ohio Beauty 101
Olivet 101
Orel 25 100
Ostheim 100
Plymouth 102
Plymouth Rock 102
Purity 101
Reine Hortense 94
Richmond 102
Rockport 102
Royal Anne 98
Royal Duke 103
Royal Hative 97
Russian Morello 103
Russian 207 103
Schmitdz 103
Schmitdz Bigarreau . 103
Spanish 105
Suda 105
Suda Hardy 105
Tartarian 105
Virginian May 102
Windsor 106
Wood 107
Yellow Spanish 105

PEACH.
Admiral Dewey 117
Alexander 110
Banner 111
Beers Smock 111
Belle of Georgia 112
Bowslaugh 114
Brigdon 113
Carmen 114
Chairs choice 115
Champion 115
Chili 117
Crosby 116
Dewey 117
Early Crawford 118
Early Michigan 119
Early Purple 119
Early Rivers 132
Elberta 120
Engol 121
Excelsior 116
Fitzgerald 122
Foster 122
Garfield 113
Golden Drop 123
Greensboro 123
Hale 124
Hales Early 124
Hales Hardy 116
Hill's Chili 117
Hynes 126
Hynes Surprise 126
Jacques Rareripe ... 125
Kalamazoo 126
Late Crawford 127
Leamington 128
Lemon Cling 128
Lewis 128
Longhurst 127
McConnell 128
Mammoth 121
Matthew 129
Matthew's Beauty .. 129
Mountain Rose 129
New Prolific 130
Niagara 131
Oceana 130
Oldmixon Free 133
Reeves Favorite 134
Reid 135
Rivers 132
St. John 136
Salway 135
Smock 135
Sneed 136
Stevens 137
Stephens Rareripe .. 137
Thurber 138
Triumph 139
Tyhurst 138
Wheatland 140
Willett 140
Wonderful 142
Yellow St. John 136

PEAR.
Anjou 147
Ansault 145
Bartlett 148
Baudry 147
Beurre d' Anjou 147
Beurre Bosc 149
Beurre Diel 156
Beurre Gifford 162
Beurre Hardy 164
Bosc 149
Boussock 150
Brandywine 151
Buffum 151
Chambers 151
Clapp 152
Clapp's Favorite 152
Clairgeau 152
Comet 168
Comice 155
Cure of Leroy 183
Dearborn 155
Dearborn's Seedling.. 155
Dempsey 155
Diel 156
Doynne Boussock ... 150
Doynne de Comice .. 155
Doynne d' Ete 180
Doynne de Juillet ... 180
Drouard 157
Duchess 157
Duchess d' Angouleme 157
Easter Buerre 159
Feodant des Bois 161
Flemish Beauty 161
Giffard 162
Goodale 163
Hardy 164
Hoosic 166
Howell 165
Josephine 166
Josephine de Malines 166
Kieffer 167
Koonce 168
Lawrence 169
Lawson 168
LeConte 169
Louise 170
Louise Bonne de Jersey 170
Manning 171
Manning's Elizabeth . 171
Marguerite 172
Osband 172
Osband's Summer ... 172
Petite Marguerite ... 172
Pitmaston 173
Pitmaston Duchess d' Angouleme 173
President Drouard .. 157
President Mas. 174
Ritson 175
Rostiezer 176
Sapieganka 179
Seckel 177
Sheldon 178
Souvenir 179
Souvenir du Congres 179
Summer Doyenne ... 180
Triumphe de Vienne. 181
Triumph 181
Tyson 182
Vicar 183
Vicar of Winkfield .. 183
Virgalieu 184
White Doyenne 184
Wilder 183
Williams 148
Winter Nelis 185

PLUM.
Abundance 189
Aitken 189
America 190
Arch Duke 190
Arctic 190
Bailey 195
Bixby 191
Black Diamond 197
Blood 213
Blue Imperial 192
Blue Magnum Bonum 201
Brackett 191
Bradshaw 192
Burbank 192
Caro 194
Chabot 195
Cheney 194
Climax 193
Coe 195
Coe's Golden Drop .. 195
Columbia 196
Diamond 197

PLUM.—*Continued.*
Duane 197
Duane's Purple 197
Fellenburg 205
General Hand 202
German Prune 198
Glass 199
Glass Seedling 199
Gold 199
Grand Duke 200
Green Gage 212
Gueii 201
Hale 202
Hammer 202
Hand 202
Hawkeye 203
Hudson River Purple Egg 210
Imperial Gage 204
Italian Prune 205
Kingston 205
Lombard 206
McLaughlin 206
Mankato 207
Maru 207
Maynard 208
Milton 207
Monarch 208
Niagara 192
Ogon 209
Pride 213
Pond 209
Pond's Seedling 209
Prince of Wales 210
Prune d' Agen 210
Prunus Simoni 215
Purple Egg 210
Quackenboss 211
Red June 211
Red Nagate 211
Reine Claude 212
Reine Claude de Bavay 212
Satsuma 213
Schley 214
Sharp 216
Sharp's Emperor 216
Shippers Pride 213
Shiro 215
Shropshire Damson 215
Simon 215
Simonsi 215
Simon's Plum 215
Smith Orleans 216
Stoddard 216
Victoria 216
Washington 217
White Magnum Bonum 219
Whitaker 217
Wickson 217
Wild Goose 218
Willard 218
Wolf 218
Wyant 219
Yellow Egg 219
Yellow Japan 195

QUINCE. PAGE
Apple 223
Bentley 220
Champion 220
Fuller 223
Orange 223

GRAPE.
Agawam 228
Alice 228
Bacchus 228
Barry 228
Brighton 230
Campbell 232
Campbell's Early 232
Catawba 231
Champion 233
Concord 234
Delaware 235
Diamond 236
Early Ohio 237
Early Victor 237
Empire 237
Empire State 237
Gaertner 237
Golden Pocklington 245
Green Mountain 250
Hartford 237
Hartford Prolific 237
Janesville 238
Jessica 238
Lady 238
Lindley 238
Massasoit 240
Merrimac 241
Moore 242
Moore's Early 242
Moore's Diamond 236
Moyer 241
Niagara 243
Northern Light 244
Perkins 232
Pocklington 245
Requa 246
Rogers 3 240
Rogers 4 249
Rogers 9 238
Rogers 14 237
Rogers 15 228
Rogers 19 241
Rogers 28 246
Rogers 43 228
Salem 247
Transparent 239
Vergennes 248
Wilder 249
Winchell 250
Woodruff 248
Woodruff's Red 248
Worden 251
Wyoming 252
Wyoming Red 252

BLACKBERRY.
Agawam 254
Ancient Briton 255
Briton 255

PAGE
Eldorado 256
Erie 256
Kittatinny 257
Lawton 257
Mersereau 258
Minnewaski 259
Ohmer 259
Snyder 259
Taylor 260
Taylor's Prolific 260
Triumph 260
Wachusett 261
Western Triumph 260
Wilson 261

CURRANT.
Belle de St. Giles 274
Black Victoria 264
Brayley 265
Champion 265
Chatauqua 265
Cherry 265
Clipper 266
Crandall 267
Eclipse 267
Fay 268
Fay's Prolific 268
Fertile d' Angers 265
Holland 268
Kerry 269
Lee 270
London 269
London Market 269
Long Bunched Holland 268
Middlesex 270
Naples 271
North Star 271
Pomona 271
Prince Albert 273
Red Cross 273
Red Dutch 274
Red Imperial 265
St. Giles 274
Saunders 275
Saunders No. 12 270
Versaillaise 275
Victoria 275
White Antwerp 278
White Grape 278
White Holland 268
White Imperial 278
White Transparent 278
Wilder 278

DEWBERRY 279

GOOSEBERRY.
Champion 282
Crown Bob 282
Downing 283
Industry 286
Josselyn 285
Keepsake 283
Pearl 284

GOOSEBERRY—*Continued* PAGE
Red Jacket 285
Whitesmith 285
Wyndhams 286

RASPBERRY.
Caroline 289
Columbian 290
Conrath 289
Cumberland 290
Cuthbert 290
Golden Queen 292
Gregg 293
Herbert 293
Hilborn 295
Kansas 292
Loudon 292
Marlboro 295
Miller 295
Older 296
Phoenix 295
Queen of the Market. 290
Reliance 296
Shaffer 297
Smith Giant 298
Strawberry Raspberry 298
Turner 296

STRAWBERRY. PAGE
Annie Laurie 302
August Luther 308
Bederwood 302
Belt 302
Bismarck 303
Boynton 303
Brandywine 303
Bubach 303
Buster 304
Carrie 305
Clyde 304
Dunlap 305
Eleanor 305
Emperor 305
Empress 306
Excelsior 306
Gandy 306
Geisler 306
Glen Mary 306
Greenville 307
Hales 11.59 P. M. ... 307
Haverland 307
Howard's No. 4 307
Irene 308
Klondike 308
Lovett 308

PAGE
Luther 308
Margaret 309
Marshall 310
Mastodon 309
Michel 310
Midnight 307
Monitor 310
Nettie 311
Nick Ohmer 311
Parson's Beauty 311
Ridgeway 312
Robbie 312
Ruby 312
Sample 313
Saunders 313
Seaford 313
Senator Dunlap 305
Sharpless 314
Smith 314
Splendid 314
Staples 314
Tennessee 315
Tennessee Prolific ... 315
Timbrell 315
Van Deman 315
Warfield 315
Williams 316

NOTE.—Names printed in *Italics* are synonyms of varieties otherwise named.

Y0-ATF-549